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The American Review of Reviews.

EDITED BY ALBERT SHAW.

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Photograph by Paul Thompson.

• Bishop Milton Wright.

Orville Wright.

Wilbur Wright.

BISHOP WRIGHT AND HIS TWO FAMOUS SONS AT THE DAYTON CELEBRATION IN THEIR HONOR ON JUNE 18 AND 19.

THE AMERICAN REVIEW OF REVIEWS

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No. 1.

THE PROGRESS OF THE WORLD.

*What
the People
Talk Of.*

The country has been more interested in school and college graduation exercises, in the weather, the crops, and,—not least,—in the national game of baseball than it has been in the clashes and discords of the Senate debate over tariff schedules and new kinds of federal taxation. In some sense, of course, it is a fortunate thing that the country is not all torn up over the tariff question. On the other hand, it is perhaps to be regretted that the best thought of the country is not giving more studious attention to what is going on in Washington. Never before have we had so strong and so able a tariff debate, with so little popular feeling about it. Where little groups of men are gathered together, at the lunch table or in the evening, in our centers of trade and commerce, it is by the rarest chance that one finds them talking about any phase of the matters so seriously under dispute at the nation's capital. They are much more likely to be talking about the accusation against President Woodrow Wilson that he is "trying to turn Princeton into an educational institution," or to be planning how they can get out of town over Saturday for a game of golf or an automobile run.

*In Country
as Well as
Town.*

In the country districts, at the post office while waiting for the mail or on the grocery porch, they are talking about the price of wheat or Mr. Roosevelt's exploits in Africa, and they are just as eager and as well informed about the standing of the professional baseball teams as are the younger element in the cities where the big games are actually played. But never by chance do they seem to be talking about protection and free trade, the income tax or the probable outcome of the work of the extra session. They are inter-

ested to some extent in the personalities of public life,—in President Taft and Vice-President Sherman, who play golf and go to the ball games; in Uncle Joe Cannon, in Aldrich, in Dolliver, in Bailey and Beveridge, in Root as a Senator, and new men like Cummins and Gore, and in the emergence of Lorimer, who has captured Hopkins' seat. But they do not know exactly what it was that Dolliver made his great speech about; they only know that he has somehow added immensely to his reputation as a debater. They know that Cummins has made his mark without waiting around Washington for a few years, and they seem to be quite indifferent as to which way the vote goes when the so-called "insurgent" Senators present their amendments to the Aldrich bill.

*Tariff Revision
Already
Discounted.*

It would be ridiculous, in short, to assert, in view of all the facts, that the American public is taking tariff revision seriously. The average man of affairs has been much more anxious to have Congress adjourn than to have the questions at issue settled in one way or in another. The few people who have shown constant and intelligent interest in the work of the extra session have nearly all of them been at work about some particular thing that related to their own lines of business. The paper companies and the newspapers have been fighting one another over the tariff on pulp and print paper. New England shoe interests have taken one view of free hides, and the cattle-raising States have taken the opposite. The big States of the central part of the country that use a great deal of lumber and produce little or none have wanted to bring Canadian lumber in free, while the Pacific Coast, the States on the Gulf of Mexico, and the much-protected and



Photograph by Clinedinst.

HON. WILLIAM LORIMER, THE NEW SENATOR FROM ILLINOIS.

(Mr. Lorimer has for a number of years been a representative in Congress from a Chicago District. As such he voted on the Payne Tariff bill several weeks ago. His election to the Senate to fill the seat vacated by Mr. Hopkins is in time to give him a vote upon the Aldrich bill.)

always clamorous State of Maine are demanding the continuance of the lumber tariff, in the interest of their devastating saw-mills. Louisiana is willing to condone every conceivable tariff abuse in consideration of protection for her sugar crop. Florida and California will concede anything if citrus fruits from the West Indies and elsewhere are heavily taxed. But the citizen whose interest is broad and general is not exerting himself on the tariff question this year, and even if he were, it would be hard for him to get an effective hearing.

Why Interest Is So Slack. It is not that our national tariff and revenue systems are so satisfactory that public opinion is thus seemingly indifferent about their revision and reform. It is rather because the public intelligence has grown to a point

where it has wholly lost faith in the old-fashioned notion that the way to deal with the tariff question is to put two big political parties in opposition to one another, and then take sides with the one party or with the other. There is no longer any true line of cleavage between the great parties on the tariff question, and there is no harmony or consistency within either of the party camps. Nor is there any longer any deep respect felt for the idea that great changes in policies and methods of national taxation can be successfully improvised in a few weeks or months by Congress committees, subject to the perfection of details under the ordeal of parliamentary debate. Our States in the development of their local tax systems in the last quarter-century have usually found it necessary to appoint commissions of very able and experienced men to make careful investigations and bring in reports after ample study. If Mr. Aldrich and others in Congress had undertaken to revise the national tax system by methods analagous to those they are using in their efforts to bring about an ultimate reform in our banking and currency system we should have had a very different situation before the country. A report on the tariff, the internal revenue, and the possible new forms of taxation, made with the same care that is being devoted to the forthcoming report on currency and banking, would get the serious attention not only of Congress, but of every capable person in the entire country. We should then have something to argue about and, if necessary, to fight over.

Lines of Least Resistance.

But, as matters stand, we are dealing with the revision of the tariff by a system which makes it much easier to maintain the status quo than to reconstruct things in any fundamental way. Thus the Aldrich bill naturally showed a tendency to get back much nearer the existing Dingley law, than did the Payne bill; and the House measure in most respects, and on the average, had not departed greatly from the present laws. Either bill, when viewed from a distance and in reasonable perspective, presented no marked change of outline along the tariff horizon. Most kinds of business had adapted themselves to the Dingley law, just as they had made account of other fixed conditions, like the Atlantic Ocean, the Alleghany Mountains, and the ordinary freight rates. Everybody discovered in the course of the last cam-

paigned that the tariff was not a sharp issue. As soon as Congress had met in special session it was evident that the Democratic members were more eager to protect the industries of their respective districts or States than they were to support a consistent Democratic bill framed in opposition to the Republican measure. They had their easy opportunity to present to the country and to the House of Representatives a Democratic substitute for the Payne bill. But they had no bill to present, nor could they have agreed upon the salient outlines of an opposition program. Thus the country saw, first, that tariff revision as undertaken by the Republicans would not be radical, and, second, that the idea of a radical revision would not be strongly represented either by the opposition party or by dissenting members of the party in power. The additions to the free list,—free hides, free lumber, free iron ore, as proposed by Mr. Payne and his committee,—did not represent revision and reform so much as they represented the views of particular interests. The proposal to tax tea and coffee was, indeed, in the interest of a real revenue reform, but was afterward abandoned, because it gave the demagogues too good a chance to say that this was a tax on the poor man. The country having clearly perceived that the Democrats had no program of opposition, and thorough-going revision of the tariff having no body of united and consistent supporters in Congress, the one thing chiefly desirable was to get the tariff out of

the way, so that uncertainties might not delay the process of recovery in the financial and industrial world.

The chief motive for getting some sort of change in the tariff schedules was frankly expressed. That motive was to secure revision enough to avoid having tariff agitation too disturbing a fac-

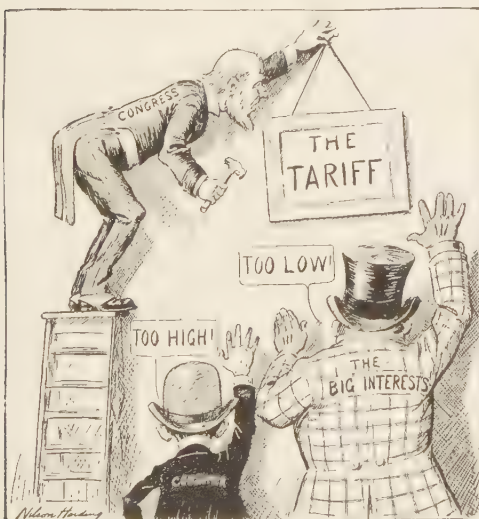
Enough
Revision to
Stop Agitation.



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SENATOR CUMMINS, OF IOWA.

(Who has been chiefly instrumental in forcing a situation that will result in submitting an income tax amendment to the States.)



CONFLICTING ORDERS!

From the *Eagle* (Brooklyn, N. Y.)

tor in the immediate future of politics and industry. President Taft had strongly declared for an honest and appropriate revision of the tariff schedules, and by this he had plainly meant a reduction in the average rates of duty, and sharp changes at a number of points. Mr. Taft still adheres to the view that the Republican party promised to make a real, "downward" revision of the tariff, and that it must keep its word. There is one sense in which the party has now faced

its promises. Each House of Congress has overhauled the tariff, schedule by schedule, the country has been invited to join the discussion, and the debating, particularly in the Senate, has been frank and above-board. Even if changes are not radical, it cannot be said that the tariff has not been subjected to the process of revision. When the Senate debate is ended and the Aldrich bill as amended is submitted to the final arbitrament of the conference committees of the two Houses all the important points of difference will stand out in a strong light before the country. It is generally believed that President Taft's influence will be felt at that stage of the proceedings, and that he will urge the wisdom of the lower rather than the higher rates as a general rule. It was expected by those best informed that the Senate would reach a final vote somewhere near July 1, and that the work of the conference committees might require about two weeks. Of course the proposal of a new form of taxation, as set forth in a Presidential message, might make further delay, even until August.

*Motive of
Income-Tax
Advocates.*

The one strong bond of sympathy that made it possible for a dissenting group of Republican Senators to act at various points with the Democrats was to be found in the view that the Aldrich bill did not fairly equalize the burden of taxation as between the rich and the poor. The motive controlling the agreement upon an income-tax amendment was not so much the production of needed revenue as the shaping of an equitable system of federal taxation. Senator Cummins and those acting with him believed that the best way to get rid of some of the abuses of the high tariff system was to initiate at once a form of taxation which could be developed in the future and which would reach, openly and directly, the surplus resources of those who could contribute amply to the support of the Government without feeling the burden. This, of course, is a doctrine that has long been officially proclaimed by the Democratic party. In its Denver platform that party declared for an income tax and for the submission of a constitutional amendment which would remove all doubt as to the power of Congress to adopt such a method of obtaining a revenue. Senator Bailey, of Texas, has represented the Democratic view on this subject and Senator Cummins, of Iowa, has stood for the view of the Republican minority.

*How the
Tax Was
Sidetracked.*

The bills introduced by these two Senators were different in some important particulars. It was believed by Mr. Aldrich and the Republican majority that they could defeat the income tax because of differences between the two pending proposals. When, however, toward the middle of June, Senator Bailey and Senator Cummins compromised their differences and agreed upon one bill instead of two they were in a position to force an agreement upon a date for a vote upon their proposition and, as it appeared, they had a very fair chance to secure an adoption of their measure as an amendment to the Aldrich bill. An income tax at this time not only has the disfavor of Mr. Aldrich and the Senate leaders, but it is also contrary to the judgment of President Taft on grounds of constitutional interpretation, if not on grounds of political expediency. Consequently Mr. Taft came to the relief of the beleaguered managers of the Aldrich bill with a special message, which was duly read in Congress and throughout the country, on June 17. In this message Mr. Taft calls attention to the fact that he had recommended in his inaugural address and his message to Congress the adoption of a tax on inheritances as a means of meeting the probable deficiency of income.

*Points of
the Special
Message.*

The House of Representatives, as he proceeded to explain, had already adopted this idea. The Senate, however, was considering an income tax and was not apparently in favor of the tax on inheritances. The form of income tax proposed in the Senate, Mr. Taft further



'TWIXT LOVE AND DUTY ON HOME PRODUCTS.
From the Sun (Baltimore).

assures us, is almost the same as that which the Supreme Court of the United States declared unconstitutional after its adoption in connection with the Wilson tariff bill. It is therefore recommended by the President that Congress, before resorting to the device of a federal income tax, should secure the removal of all constitutional doubts and scruples by taking steps to amend the Constitution. This would require the framing and adoption of a suitable amendment by Congress and its submission to the States in order to secure the needed approval of at least three-fourths of the forty-six members of the Union. Meanwhile, instead of an income tax, Mr. Taft proposed that Congress should levy a tax of 2 per cent. upon the earnings of corporations. While this would partake of the nature of an income tax, it would be construed as an "excise tax upon the privilege of doing business as an artificial entity and of freedom from the general partnership liability enjoyed by those who own the stock."

*A
Desirable
Amendment.*

Mr. Taft's advice not to attempt to levy an income tax until Congress had been clearly given the constitutional authority is likely to be accepted. Those who had pushed the income tax movement to the point where they believed themselves about to win a victory in the Senate were far from pleased with a Presidential message that frustrated their plans. They were not disposed to give up the idea of obtaining a vote on the income tax, but they declared themselves to be entirely willing meanwhile to make the power of Congress broader and more unquestioned by amending the Constitution. There are those of us who believe that the power to tax incomes ought to be vested in Congress in order that it may be used promptly and without question in times of emergency. Under the Constitution as it stands, direct taxes have to be apportioned to the States in the ratio of their population. Under the Constitution as interpreted by the courts an income tax is a direct tax and cannot be levied and collected except through an undesirable method of apportionment.

*Shall
We Try
New Taxes?*

Meanwhile Mr. Taft does not make it quite clear why, having recommended inheritance taxes and having secured the adoption of such a plan by the House, he should at so late a stage in the proceedings of the special ses-



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SENATOR JOSEPH W. BAILEY, OF TEXAS.

(Who has led the Democrats in the demand for an income tax.)

sion abandon the inheritance tax and propose a still different form of new tax which had not been under discussion in either house. Mr. Aldrich, in presenting his bill on behalf of the Finance Committee, declared himself strongly against new forms of taxation at the present time, and believed that the tariff and internal revenue levies would give the Government a sufficient income. If Mr. Aldrich and his supporters now accept the plan of a tax on corporation earnings it will not be from conviction as to its need or merit, but as a substitute for a threatened income tax, which would at once be questioned in the courts and lead to confusion. Mr. Taft's proposed tax on corporations is well worth study, but it is hardly a thing to be adopted off-hand. It would seem almost impossible to apply it to all corporations, the small ones as well as the great ones; yet if it is not to be so applied it would prove no easy matter

to find any logical, legal, or practical line of separation between those to be taxed and those to be exempted.

*Some Points
About Corpora-
tion Taxes.*

If, as Mr. Taft suggests, a federal excise tax on corporations is to be a step toward Government regulation and control, there must be involved a very large expansion of machinery for keeping track of corporation reports, accounts, and affairs. Moreover, if the earnings of corporations are to be taxed there will have to be something like uniform methods of accounting and reporting in order to get at the true amount of earnings in the meaning of the law. Mr. Taft says that the tax should be upon net earnings rather than upon gross, in order to put the burden upon success rather than upon failure. Various States, however, and also municipalities, in trying to find ways to tax railroads or to exact payments from franchise-holding companies for their privileges, have found that the only workable method is to levy a certain percentage upon the gross receipts of a given company instead of upon its net earnings. Mr. Taft's proposal has great merit and would seem far superior for ordinary practical purposes to an inquisitorial income tax upon individuals. But it will prove to be difficult proposal to embody in law and put into operation without a considerable period of time for inquiry and discussion as regards the details. It would seem likely that this year's revenue legislation would in the end fail to include any of the proposed new kinds of taxation. If any is to be adopted, the simplest and safest plan would be to stand consistently by the inheritance taxes as originally advised by Mr. Taft and as included in the Payne bill and adopted by the House of Representatives.

*Make
the Tariff
Productive.*

Our national system of taxation has so many aspects that it seems difficult to focus attention sufficiently upon the primary object of it all, which is to provide the Government with a revenue. Far better than looking about for new kinds of taxation are certain simple and obvious proposals to make the present kinds of taxation yield their full measure of return. Nothing more practical or to the point has been said than by Senator Beveridge in his exposure of the sacrifice of public income made when Congress remitted the extra taxes on tobacco without restoring the sizes of the fixed-price packages; so that the con-

sumer continues to pay the war tax, which the Government in turn hands over to the tobacco companies as a clear gift, amounting in the course of a few years to tens of millions of dollars. A tax on tea and coffee is an admirable form of impost, harming nobody, affording an excellent opportunity for public income, and incidentally assisting in the enforcement of the Pure Food law. The Government already obtains a great part of its income from the tax on sugar; and it is highly inconsistent to defend a tax upon a real article of food like sugar while criticising a tax on tea or coffee as burdening the ordinary family. The use of strong tea or strong coffee is purely a voluntary matter, and a moderate tax on these articles need not appreciably increase the cost of living. The internal revenue tax on beer might well be put back where it was for a time after the war with Spain.

*The
Sugar
Taxes.*

As for the sugar tax, the public ought to understand clearly that the Government would obtain an even larger income, and the consumer would pay less than now for his sugar, if the rates of duty on refined sugar were reduced, while



WHAT WILL THE SENATE DO—HOLD UP OR UPHOLD
THE SUGAR TRUST?

From the *Daily Tribune* (Chicago).

those on crude sugar remained as they are. The high rates on refined sugar are for the benefit of the American Sugar Refining Company, known as the Sugar Trust, which proposes to keep the tariff laws in such shape as to make it impossible to import sugar fit

for use, and which thus virtually controls the import of the raw or crude material and also the markets and prices for the refined article. This state of things is made the more easily possible because the relatively small sugar production of Louisiana demands protection and the beet-sugar growers of the West are as yet stronger in their influence at Washington than they are in supplying the demand for sugar. Louisiana will not ultimately be a sugar-producing district, and the interests of the beet producers do not require the kind of differential between raw and refined sugar that suits the purposes of the Trust. If Congress would address itself much more directly to the revenue-producing aspects of the tariff the outcome would be more satisfactory than it is likely to be. Where the tariff clearly fosters monopoly, as in the case of the Sugar Trust, the paper combinations, and various other instances, there arise special reasons for reducing or even abolishing particular rates. But otherwise, as long as we have custom houses at all, the obvious thing is to make imports pay some tribute to the Treasury, however small; and the growth of the free list in the face of Treasury deficits can hardly be justified from the standpoint of thrifty finance.

*Senators
and Their
Debate.*

It is fair to say that the debate in the Senate has added a good deal to the respect of the country for the ability of many of the members of that body. Mr. Aldrich has had a most difficult task and at various points he has met his match. It was not, of course, to be expected that the chairman of the Finance Committee could know more about everything than various individual colleagues could know about some one particular topic or schedule. But on the whole Mr. Aldrich has shown great readiness, power, and resource. The opportunities afforded by this protracted debate have given some of the newer members positions in the Senate that otherwise they might not have attained for several years. Thus the country has discovered in Mr. Gore, the blind Senator from Oklahoma, a man of remarkable wit, prodigious memory, and real intellectual force. It has found in Mr. Cummins, of Iowa, a trained mind, a firm legal grasp, and the high qualities of character that his friends and admirers already knew. It has been shown a capacity for serious work and independent action, beyond his already well known oratorical and debating talent, that it had not



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SENATOR GORE, OF OKLAHOMA.

(A new Senator of striking talents and personality.)

before quite appreciated in Senator Dilliver,—perhaps because he had been a little overshadowed by the prestige and the conservatism of Senator Allison. The debate has brought out Senator Warren, of Wyoming, in his capacity, to quote Senator Dilliver, as “the greatest shepherd since the days of Abraham” and as a remarkably skillful defender of the complicated wool and textile schedules. Mr. Clapp, of Minnesota, who has not heretofore been aggressive in his demands upon the time of the Senate, has shown his real abilities in this debate; and Mr. Smoot, of Utah, has done very well in the difficult and not always popular rôle of an understudy for Mr. Aldrich in support of the work of the Finance Committee.

*“Insurgents”
and Party
Standing.*

The attempt of Mr. Aldrich from time to time to outlaw some of the dissenting Republicans has not in the least impressed the great Republican States of the West. As Senator Clapp quite truly remarked, the so-called insurgents would find it much easier to justify themselves and their votes before their



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SENATOR WARREN, OF WYOMING.

(An able tariff debater and "the greatest shepherd since Abraham.")

constituents at home than to justify the positions assumed by Mr. Aldrich and the Senate majority. The insurgents have felt at times that they were more loyal to Mr. Taft and his avowed wishes and views than was Mr. Taft himself; and that the President had been too yielding in his attitude toward the Congress leaders. But in taking this view they were not always mindful of the fact that the President's position in the tariff-making of the extra session has to be wholly different from that of a Senator. In the end it will probably be clear to everybody that Mr. Taft has done all that he reasonably could for tariff reform in view of his position as President. It would have been neither dignified nor useful to have involved the President in each succeeding point of controversy in the long course of a tariff debate. Mr. Root, in the Senate debate, has been influential at many critical points and has voted at times with the dissenting group of Republicans without acting with them as a rule. In moments when the broad policy of the Government had to be supported,—as in the case of a fair treatment of the Philippine Islands in the matter of our giving them a market for their sugar,—Mr. Root has been firm and convincing in

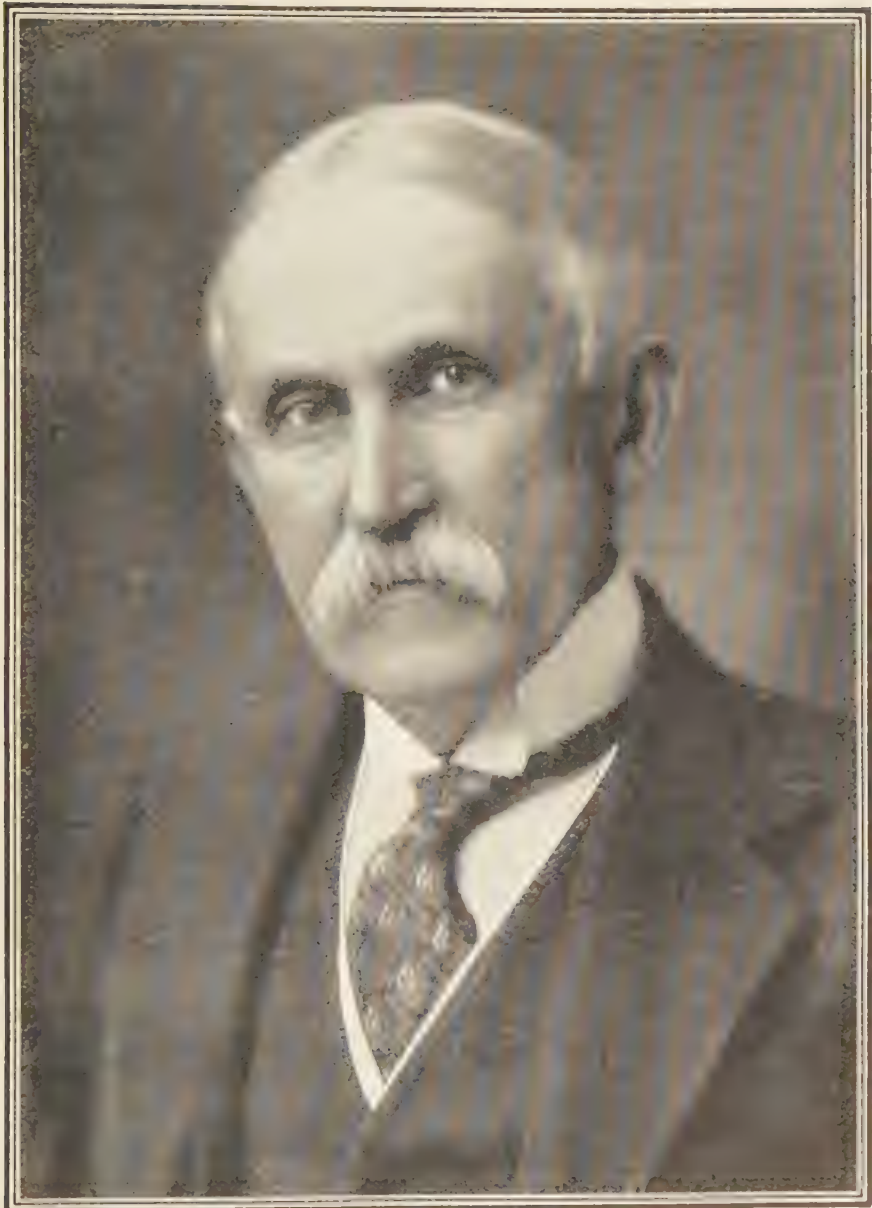
his stand for our higher duties and obligations. The Democrats in the Senate have for the most part allowed the Republicans to fight it out among themselves, although they have been closely on guard when their own State or sectional products have been under discussion. They have, upon the whole, been exceedingly ingenious in keeping up the pretense of superior virtue as tariff reformers, while playing the log-rolling game with the most unrelenting diligence for the benefit of their own States and districts.

*Mr. MacVeagh
on the
Taft Policies.*

The most significant of all recent attempts to explain the general attitude and policies of the Taft administration was made by the Hon. Franklin MacVeagh, Secretary of the Treasury, in a speech at Chicago early in June. Mr. MacVeagh declares that the administration will be firm in matters of principle, though conciliatory wherever possible to the end of keeping the Republican party united as a progressive agency for the advancement of the work of the Government and the interests of the country. The administration clearly accepts full responsibility for party leadership, and would, if necessary, seek to promote its objects by building up a new majority and a new control within the party. To put it less diplomatically, Mr. MacVeagh undertook to say for Mr. Taft that while the President would do all that he could to get on with the ruling groups in the two Houses of Congress, he would be prepared, if necessary, to appeal to the great body of Republicans in the Mississippi Valley to support progressive policies, whether inherited from the Roosevelt administration or initiated as a part of the original program of the present administration. Mr. MacVeagh expresses himself with felicity and with statesmanlike breadth of view.

*More Trouble
for the
Sugar Trust.*

The troubles of the American Sugar Refining Company, popularly known as the "Sugar Trust," have continued in the reverse sustained in the important suit brought by the Pennsylvania Sugar Refining Company. The latter concern has sued the Trust, under the Sherman law, for damages and penalties amounting to \$30,000,000. It seems that in 1903 Adolph Segal, a wealthy real estate operator of Philadelphia, built a large and excellently equipped sugar refinery for the purpose, according to his friends, of competing with the Trust. The friends of Mr.



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HON. FRANKLIN MACVEAGH, SECRETARY OF THE TREASURY.

Havemeyer, the late head of the American Sugar Refining Company, assert that the Pennsylvania Refinery was a "strike,"—that is, it was a concern projected to sell out to the Trust. At any rate Mr. Segal, the promoter of the new enterprise, became, just about the time of the completion of his refinery, very much overextended financially and was forced to borrow heavily on the securities of the Pennsylvania concern. He borrowed \$1,250,000 through a broker, and

this loan was made by the Sugar Trust, though it is denied by Mr. Segal's advocates that he knew at the time where the money came from. A condition of the loan was that the lender should control the directorate of the new refinery, and this directorate, representing, of course, President Havemeyer's interests, kept the factory closed; and as a matter of fact it has never refined any sugar. Naturally, the securities of a refinery that does not refine are of little value, and it was



H. L. Stimson.

H. A. Wise.

UNITED STATES ATTORNEYS AT NEW YORK AIDING
THE DEPARTMENT OF JUSTICE AGAINST THE
SUGAR TRUST.

the depreciation in the stocks of the Pennsylvania Company that helped to bring the Real Estate Trust Company of Philadelphia to its sensational disaster. Mr. George H. Earle, Jr., receiver of this institution, made energetic attempts to secure some arrangement by which the refinery should be opened and finally brought this suit against the American Sugar Refining Company for \$30,000,000, the Sherman act providing for penalties of three times the actual damage in such cases of alleged conspiracy in restraint of trade. The attorneys of the Trust effected in June a settlement with Mr. Earle before the suit was decided by the court, on a basis providing, according to report, for a payment of about \$2,000,000 from the Trust, besides the cancellation of the loan.

*A More
Open Policy
Needed.*

The American Sugar Refining Company was one of the first large and successful industrial combinations, and some of its methods of management have belonged to the older order of things. Having built up their profitable and well-managed business through the years when the status of such great enterprises was but ill-defined in law, and among conditions which brought the Sugar Trust notoriously in danger of being a plaything of politics, its managers have until recently maintained the utmost secrecy, even toward

their own large stockholders. The present trend of law and sentiment is making impossible such methods of conducting a huge corporation. The Sugar Trust has already given evidence that its directors realize something of this in giving for the first time a public report, though an inadequate one, of the operations and financial status of the company. The heavy loss incurred in the suit in equity by Mr. Earle may be followed by an action by the Federal Government, also under the Sherman act. Attorney General Wickersham is now investigating the case to see if sufficient grounds exist for a successful federal suit, which may take the form of insisting on the dissolution of the American Sugar Refining Company. Mr. Henry A. Wise, the new United States District Attorney for New York City, is engaged in this case, while his predecessor, Mr. Henry L. Stimson, is serving the Government in the matter of the weighing frauds by the Sugar Trust, as explained in these pages last month.

*The Seattle Fair
and the
Northwest.*

The Seattle Exposition, which opened with the beginning of June,—and concerning the preparations for which the June number of the



Photograph by The Co-operative Press.

MR. GEORGE H. EARLE, JR.



MR. JAMES J. HILL SPEAKING AT THE OPENING OF THE EXPOSITION AT SEATTLE.

REVIEW gave ample account in text and picture,—is meeting with favor and success and there will be found in the present number an article about it from the pen of a last month's visitor. President Taft, at the White House, pressed an electric button which started the exposition machinery, and distinguished Europeans and Americans joined in the opening exercises. In view of the tide of travel that

will be induced to move toward the Northwest this summer, several articles presented in this number of the REVIEW will be found especially timely. One of them deals broadly with the resources and progress of Alaska, and another with the marvelous expansion of the railway systems of the Northwest, including those of Canada. Still others remind us of the great scenic reservations set



A GEOLOGICAL SURVEY PARTY "TREKKING" ACROSS THE PLAINS OF ALASKA.

aside by Government, and of the striking agricultural development due to irrigation and new farming methods.

Alaska's
Govern-
ment.

The oft-recurring problem of organizing a government for Alaska is again before Congress, but nothing is likely to be done at this session, al-

though a bill was introduced last month by Mr. Wickersham, the Territorial Delegate, providing for a legislature of twenty-four members,—eight Senators and sixteen Representatives, to be chosen from the four judicial districts now existing. The government of the Territory is now practically in the hands of the federal judges. It had been hoped that President Taft could visit Alaska this summer and possibly be able from his own observations to make suitable recommendations to Congress on the form of government best adapted to the local conditions, but it is understood that the President finds it impossible to make this journey. Meanwhile he has appointed as Governor of the Territory Mr. Walter E. Clark, an observant and capable young newspaper correspondent who has made several tours of the country and is familiar with Alaskan life and conditions. Mr. Clark will take office in October next. There are now few portions of Alaskan soil that have not been traversed by the indefatigable explorers of our Government scientific corps. The accompanying illustration shows Dr. A. H. Brooks and his colleagues of the Geological Survey on the Alaska detail making a wearisome "carry" in that far-off land. Perhaps no American has covered more Alaskan miles in this toilsome fashion than has Dr. Brooks, and it is the knowledge gained by such arduous processes that gives point and value to the article contributed by Dr. Brooks to this number of the REVIEW. Alaska is no longer *terra incognita*.



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MR. WALTER E. CLARK.

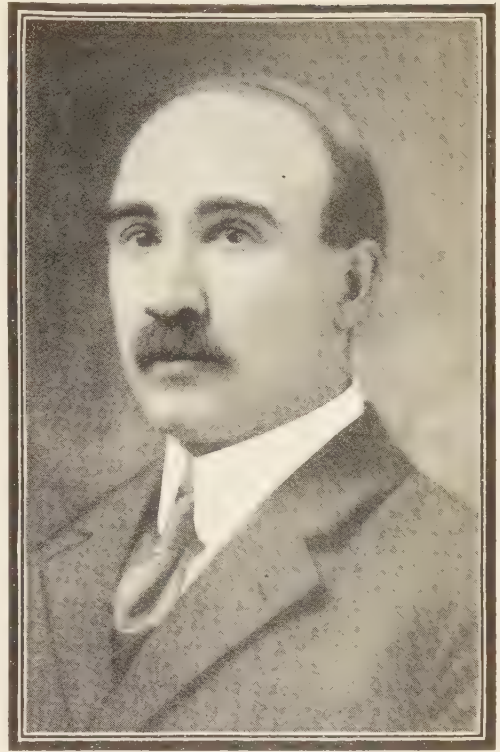
(Newly appointed Governor of Alaska.)

*Taking
the Next
Census.*

It does not seem to be fully understood by the country that the Census Bureau at Washington is now on a permanent basis and that the old methods governing the appointment of its clerical force have been largely abolished. The taking of the United States decennial census is now the greatest statistical enterprise in the world. It has far outgrown the old and costly expedients that were of necessity temporary and dependent on the mutations of Washington officialdom. The taking of the census is one of the functions of the Department of Commerce and Labor. The new head of that department, Mr. Nagel, has taken a keen interest in the work of the bureau, and on the resignation of Director North in May President Taft appointed as his successor Dr. E. Dana Durand, who had for several years served as Deputy Commissioner of Corporations, and in that capacity had made an exceptionally good record. Dr. Durand is a trained statistician of much experience. It is understood that he was Secretary Nagel's personal choice for the position. The appointment was confirmed by the Senate on June 14. Only a few months remain in which to complete preparations for the census of 1910. If the bill now before Congress becomes a law, the enumeration of population will be made as of April 15, 1910, instead of June 1, as formerly. About 65,000 enumerators must be appointed to do this work. The naming of these officials will devolve on the district supervisors. As it will be impracticable to operate a system of examinations for these temporary positions, the efficiency of the personnel and hence the accuracy of the population returns will depend to a great extent on the character of the men appointed to these supervisorships. Statistics of manufactures and mining will be gathered and collated by special agents. So far as possible the merit system will be applied throughout the census organization.

*The Philadel-
phia Street
Car Strike.*

The motormen and conductors of the Philadelphia Rapid Transit Company seized the psychological moment, when the public seemed to be unfavorably disposed toward the traction company and when the Republican primaries were about to be held, to declare a strike on May 29. Their demands included an increase of wages from 21 to 25 cents an hour, a different arrangement of their working day, and the privilege of buying their uni-



Photograph by Clinedinst.

MR. E. DANA DURAND, THE NEW DIRECTOR OF THE CENSUS.

forms wherever they pleased. The strike lasted about a week and was accompanied by the usual acts of violence and disorder. The transit company, with the assistance of an extra police force and several hundred strike breakers from other cities, succeeded in lamely operating about half of their cars on the more important lines of the city. The public sympathized with the strikers, but the company, which had the support of Mayor Reyburn and other officials, would probably have gained the victory if allowed to keep up the fight. With the political powers on the side of the company and defeat in sight for the strikers, however, several district leaders began to fear for the fate of the machine ticket at the coming primaries. A conference was therefore called, in which Mayor Reyburn and other political leaders and representatives of the transit company took part; an agreement was drawn up, submitted to the strikers, and finally accepted by them. It was clearly a victory for the men, most of their demands being granted. The only exception was that affecting the wage scale, the men getting only part of the increase requested.



CLARENCE O. PRATT.

(The labor leader who successfully led the Philadelphia car strike.)

The selection of the favorable moment for calling the strike and its successful prosecution is credited to the sagacity of Mr. Clarence O. Pratt, national organizer of the Street Railway Employees' Union. Mr. Pratt's marvelous ability in handling men and his record for winning traction strikes have given him a wide reputation.

*The Georgia
Railroad
Strike.*

A strike of the white firemen against the employment of negroes resulted in a tie-up of the lines of the Georgia Railroad late in May. Before the road stopped operations completely trains were mobbed and assaults committed on negro firemen by people along the line who sympathized with the strikers. Many towns suffered seriously by reason of the failure of the food supply and the delay in mail delivery. Commissioner Neill, of the Labor Bureau, went to Atlanta and conferred with the leaders of both sides, endeavoring to bring about an agreement to submit the disputed matters to arbitration. After the railroad had lain idle for about a week, the strike was settled rather suddenly in favor of the striking firemen. The company agreed to re-employ the white men who had been dis-

charged to make room for negroes and to recognize the seniority of the white men. It was reported that the settlement of the strike had been precipitated by the possibility of federal interference. Chairman Knapp, of the Interstate Commerce Commission, is said to have declared that the matter would be thrown into the federal courts unless settled by a certain day. This would have been effected by an injunction to prevent interference with the mail trains, and in case of the violation of such injunction its enforcement would have been necessitated by the aid of federal troops. The conference which settled the strike was participated in by Chairman Knapp, of the Interstate Commerce Commission, Commissioner Neill, Assistant Postmaster-General Stewart, and officers of the Railroad and Firemen's Brotherhood. It was found impossible, however, to reach an agreement on a number of points remaining in dispute, and these questions will be submitted to an arbitration board under the provisions of the Erdman act. There are a number of important racial and economic issues involved in the controversy, and it is sincerely hoped that these will finally be settled with a view to the best permanent interests of the South.



MR. WILLIAM JAY SCHIEFFELIN.

(President of the Citizens' Union of New York.)

*The
New York
Campaign.*

Political forces in New York City are preparing for a great campaign in the autumn. Candidates for Mayor are not yet selected, but it is certain that a strong and aggressive independent movement will endeavor to obtain control of the city government. A meeting called by well-known citizens a few weeks ago, under the chairmanship of Mr. Robert C. Ogden, resulted in the appointment of a committee charged with the duty of naming a body of one hundred citizens to launch a ticket and direct the campaign. The Ogden "Committee of Nineteen" was headed by Mr. Gustav H. Schwab, as chairman, and his associates were men of representative character and varied interests. The names of the chosen one hundred were announced by Mr. Schwab at a meeting in Cooper Union June 16. The group is made up of lawyers, business men, labor leaders, civic reformers, and residents of all the different boroughs that make up the great metropolis. It will promulgate a platform, launch a ticket, and make a campaign. Back of the movement are patriotic organizations like the Citizens' Union, of which Mr. William Jay Schieffelin is now president; but the committee is in no way responsible to any organization, but only to the citizenship of New York. The remarkable work of the Bureau of Municipal Research has made a great public issue out of putting practical business methods into the expenditure of the city's revenues; and there are many questions of magnitude that must come before the next Mayor and his colleagues. Tammany will make desperate effort to retain its present profitable control of the city government, but the independent movement will stand a good chance, especially if its ticket should win the support of the Republicans and other anti-Tammany elements. As respects many matters of municipal progress, there has been great recent advance in New York, and public opinion grows more intelligent and exacting.

*Connecting
New York
Terminals.*

Of national as well as local interest and significance are the rapidity and thoroughness with which the city of New York is connecting all the transportation terminals within the limits of its "greater" area. Despite the fact that for a generation virtually all the great land and water systems of the country have centered in or started from New York, the metropolis has never had any definite coherent system of connections between these

terminals. The ferry, the trolley, and the cab are fitted for local travel only. They have never,—at any rate during recent years,—properly been units in a continental or even inter-State journey. The next year



MR. GUSTAV H. SCHWAB.

(A leader in the Citizens' movement.)

or two will undoubtedly witness the relegation of these forms of conveyance to their proper work in "short-haul" traffic. The splendid system of bridges, subways, and sub-river tunnels, which is now fairly started in New York, is therefore of deep interest and concern to the rest of the country, which not only so often visits the metropolis, but, with increasing frequency, passes through the city on longer journeys.

*New Bridges
and
Tunnels.*

Generally speaking, and considering ferry lines as having no future, Manhattan Island may be said to be connected with New Jersey and the "West" by tunnels, the Pennsylvania and Manhattan tubes promising to provide for the continental stream of travel for an indefinite future. It is true that some progress has been made toward selecting a site for the proposed \$17,000,000 bridge across the Hudson, to terminate on the New York side somewhere above Fifty-seventh Street, but, in the main, New York's western connec-



Photograph by Paul Thompson.

THE QUEENSBORO BRIDGE. CONNECTING MANHATTAN AND QUEENS BOROUGH.

tion will be by tunnel. To the east, however, to Brooklyn, while there is already excellent service through the subway, and although the Pennsylvania and at least one other tunnel will eventually connect the metropolis with the north shore of Brooklyn, the main connections between New York and Long Island will probably be by bridges. The Queensboro Bridge was officially opened on June 12, and the Manhattan Bridge, the fourth to span the East River and the third longest suspension bridge in the world, it is promised, will be ready for traffic by January next.

*Tunnels
and
Subways.*

The McAdoo system of tunnels connecting the railroad terminals in Hoboken and Jersey City, and handling traffic under the river

in an uptown and downtown series of of tubes, will be completed in about two years by the opening of the uptown connection with the Grand Central Station. The franchise permitting this connection was voted by the Public Service Commission and approved by the Board of Estimate early in June. During the first few days of the present month the public is promised the opening of the downtown McAdoo tubes, which will also closely connect the stations of the Pennsylvania, Erie, and Lackawanna railroads on the New Jersey shore with the uptown and downtown business districts in New York. Late in May Governor Hughes signed a bill permitting the building of subways in New York by private capital on indeterminate franchises. A number of comprehensive offers to construct such under-

ground lines were made by groups of private capitalists during the month of June. The New York Public Service Commission, which is now two years old, has been instrumental in greatly improving traffic facilities on the subway and East River bridges and in Brooklyn.

*Reforms
for
"Wall Street."* The finding of the committee appointed by Governor Hughes to inquire into Wall Street methods was published June 16. It is a concise, complete, and sober report on the uses and abuses of the nine exchanges in New York City,—the principal machinery for American in-



THE MANHATTAN BRIDGE. CONNECTING MANHATTAN AND BROOKLYN BOROUGH.

vestment and speculation. The committee, which served without pay, was competent and disinterested: Horace White (chairman), the veteran editor and financial authority; ex-Mayor Charles A. Schieren; former Supreme Court Justice David Leventritt; Clark Williams, Bank Superintendent; John B. Clark, professor of economics at Columbia; William V. King, banker; Samuel H. Ordway and Edward D. Page, lawyer and merchant, both known in civic work; and Professor Charles Sprague Smith, of the People's Institute. Maurice L. Muhleman, formerly of the United States Treasury, was secretary. About one hundred sessions were held during a period of nearly six months. Though the committee was without power to subpoena, its requests were freely answered by exchange officials and other experts. It listened also to all information volunteered. Its chief recommendations are that the Metal and Mercantile exchanges might well be abolished, as affording no genuine transactions; that mining stocks should not be handled on the Produce Exchange; that the outdoor market,—the "Curb,"—is partly meritorious, but has facilitated much swindling and must be made more responsible; that the Consolidated Exchange is limited as to usefulness, and is particularly harmful in attracting speculation by persons of small means. The "Big Board," the New York Stock Exchange itself, "to-day probably the most important financial institution in the world,"—is charged with permitting certain evils which cannot but be plain to the forty governors, and which they could readily lessen. The committee puts the issue squarely before these governors, with the warning that lack of reform will call for the incorporation of the Stock Exchange, now merely a private club. More margin should be demanded by brokers; the worst forms of manipulation prevented; possible "corners" adjusted; brokers' insolvency and failure looked into before instead of after; and the "unlisted" department abolished. Perhaps the most important statement of the report, if only of collateral interest, is that speculation in stocks or commodities by persons without large means and experience "involves a practical certainty of loss to those who engage in it."

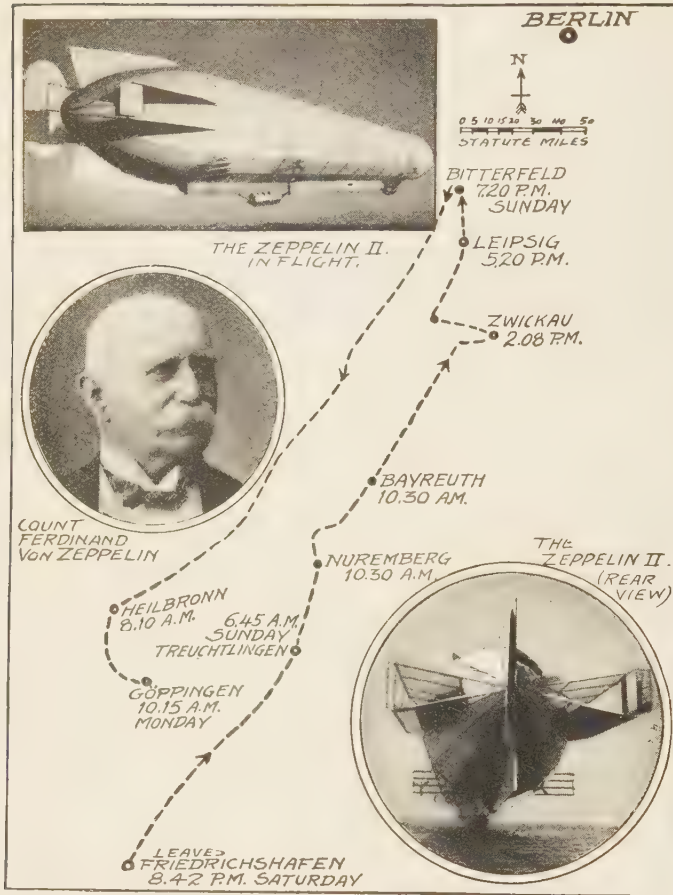
"Steel"
on the
Paris Bourse.

A matter of great sentimental importance in the financial markets of June was the project to list the common stock of the United States

Steel Corporation on the Paris Bourse. It was announced early in the month that such a plan had been arranged, but a week or two later there was some hitch in satisfying the complicated requirements of the French laws and regulations governing such a matter, and there was a considerable show of opposition on the part of the French steel makers and others. As we go to press the outcome is still not clear. This project, one of the large and daring conceptions that give the banking house of J. P. Morgan & Co. its fame and prestige, had its larger significance in the promise it gave of using the resources of the thrifty French in financing American railroad and industrial expansion. The Steel Corporation's common stock is already bought and sold in Amsterdam, as are the securities of several American railroads. Holland is credited with holding no less than 11 per cent. of the common stock of the Steel Corporation. No American stock has ever been listed on the jealously guarded Paris Bourse, though a few bonds of such railways as the Pennsylvania and the New Haven are regularly bought and sold on this exchange. The Steel Corporation had nothing officially to do with this matter; it was the project of a syndicate which was to issue certificates representing the common shares that they had purchased. These certificates were to be managed in such a form as to facilitate the purchase of a share or two at a time, after the manner of the thrifty Frenchman. In the meantime the Steel Corporation itself has been making rapid progress out of the depression in its business. In a single month its operations have increased from a little over 60 per cent. to more than 80 per cent. of full capacity. The common shares sold toward the last of May at the highest figure in their history, over 69, as against 41 three months ago and 8¾ at one time in 1904.

A Fair
Yield of
Crops.

The certain evidences of a recovery in trade noted in this department last month have multiplied rapidly. Not a little of the new confidence is due to the satisfactory June report on the condition of the crops. While the Government experts do not promise a "bumper" year in quantities of wheat and cotton, the estimated yield is satisfactory, and the prices so liberal that it seems probable the farmer will receive even more for his crops in the present year than in the extraordinarily prosperous past season. The probable cotton



From the New York Times.

COUNT ZEPPELIN, HIS DIRIGIBLE BALLOON, AND THE COURSE FOLLOWED IN THE GREAT FLIGHT OF MAY 29-31.

crop is placed at 13,000,000 bales, as against 11,600,000 bales in 1907 and the high record of 13,550,000 bales in 1904. The June 1 estimate of the wheat yield of 1909 was 652,000,000 bushels, as against 688,000,000 in 1908. A good crop of oats seems assured, an excellent yield of barley, and a great production of corn.

The most remarkable flight of man in the history of the world was accomplished by Count Zeppelin in his dirigible balloon, the *Zeppelin II.*, at the end of the month of May. Starting from its moorings on Lake Constance on Saturday night, May 29, the balloon sailed in a north-easterly direction as far as Bitterfeld. It had been expected that Count Zeppelin would continue to Berlin, where the Emperor and throngs of people awaited its appearance. The balloon turned about at

*Zeppelin's
Wonderful
Achievement.*

Bitterfeld, however, and proceeded southward on its homeward course, making a landing at Göppingen, seventy miles short of its starting point, on Monday morning, May 31. The balloon had been in the air continually for thirty-six hours, the total distance covered during that time being 850 miles. The stop at Göppingen was made for the purpose of obtaining a fresh supply of benzine for the motors. Unfortunately the descent was accompanied by an accident that severely crippled the machine. Owing to a strong wind and an error in steering, the balloon hit a tree, the outer envelope was badly torn and the framework damaged. After some temporary repairs, the *Zeppelin* on the following day resumed its flight by easy stages to Lake Constance. This astonishing performance of the Zeppelin balloon goes a long way toward demonstrating the practicability of this type of airship for service both in peace and in war. Count Zeppelin himself considers the feats of his dirigible as mere promises of what the future will bring to pass. To Wilbur Wright is credited the sanguine statement that a year hence we may even see a transatlantic trip successfully accomplished by airship. As a beginning in regular airship passenger traffic, the Zeppelin Aerial Navigation Company proposes, according to report, to establish passenger lines next year between several German cities, the number of passengers to be carried and the fare to be charged being already determined. No doubt a time schedule will also follow in due course. As a further indication of Germany's encouragement of the art of navigating the air, it is reported that the University of Göttingen has established a department of aeronautics, with a suitable laboratory and a comprehensive course of lectures. The activity of the Ger-



Photograph by Paul Thompson.

THE PARADE IN DAYTON, OHIO, ON JUNE 17 IN HONOR OF THE WRIGHT BROTHERS.

mans in this field, taken together with Zep-
 pelin's latest feat and the fact that Germany
 possesses a fleet of eight or ten airships cap-
 able of maneuvering over John Bull's
 "tight little island," fully explains Eng-
 land's apprehension on the score of a possible
 German invasion.

*The Wright
 Brothers at
 Dayton.*

While Congress has not been
 overgenerous to the aeronautical
 branch of our military service, it
 is thought that the recent wonderful feats of
 foreign nations in this field will provoke
 more liberal appropriations from our Gov-
 ernment. Meanwhile the Wright brothers,
 at home again after their triumphs abroad,
 have been receiving honors and orders for
 airships in recognition of their achievements.
 President Taft, on June 10, presented to the
 Wrights in Washington the medals awarded
 to them by the Aero Club of America, and
 a few days later they were made the heroes
 of a two days' celebration in their home city
 of Dayton. On this occasion they were pre-
 sented with medals from Congress, from the
 State of Ohio, and from the city of Dayton.
 The final tests of the Wright aeroplane to
 meet the contract conditions of the War De-
 partment were scheduled to take place at
 Fort Myer in the latter part of June. The



CAPTAIN A. J. BOWLEY.

(Officer in charge of military events, military tour-
 nament, Toledo, Ohio, July 5-10.)



Photographs by C. L. Lewis of Toledo.
Mr. W. L. Milner.



Mr. G. B. Sterer.

THE PRESIDENT AND THE SECRETARY OF THE TOLEDO CHAMBER OF COMMERCE.

same machine as that used by the Wrights in last year's tests, with the addition of an improved guy wire, were to be used again. Both the inventors and the Government officials were confident of a successful outcome. In New York, on June 18, Mr. Glenn H. Curtiss, in a new aeroplane, smaller and lighter than the Wright machine, circled a half-mile course at a height of 30 feet, attaining a speed of nearly 46.7 miles an hour. Mr. Curtiss is also the inventor of the *June Bug* and the *Silver Dart*. In the balloon races that started from Indianapolis on June 5 the *University City*, owned by John Berry and John McCullough, of St. Louis, won the distance trophy offered by the Aero Club of America, with a record of 380 miles. The endurance prize was won by the *Indianapolis*, manned by Dr. G. Link and Mr. J. R. Brown, which was in the air for 22 hours. The record for remaining up is 44 hours and is held by Alfred le Blanc, of France. The French Institute, on June 16, divided the Osiris prize of \$20,000 for work in aviation between M. Bleriot and M. Voisin.

*The
Army in
Tournament*

At Toledo, where the United States Army in all its services opens a military tournament on July 2, it was announced last month that the Signal Corps would operate a dirigible balloon and that the Wright brothers were also to deliver an aeroplane ordered for the army. This military tournament is under the direction of General Frederick D. Grant and has been arranged by Captain Bowley, General Grant's aide de camp, along lines that promise to furnish both instruction and entertainment in a high degree. The men of our army, like those of our navy, are taking the work of perfecting their methods with great seriousness. Like the navy, the army desires to enlist a good class of young men, and believes that it can give them a training and discipline that will be useful to them in civil life if they retire after a term of enlisted service. To become a member of the Signal Corps, for example, means instruction in everything that has to do with telephones, telegraphs, and various other ingenious and up-to-date applications of electricity and me-

chanics. The engineer corps at the Toledo tournament will, among other things, give exhibitions of the rapidity with which temporary bridges can be built and removed. The medical department is to be represented in a model way by a regimental infirmary, a field hospital, an ambulance company, and demonstrations of the latest methods used on the field of battle. Machine-gun platoons are to exhibit the advance our army has made in this invaluable new weapon, and it is needless to say that the regular infantry troops are to be encamped in a model way and to give exhibitions of drill and other phases of army life. The cavalry and artillery are always picturesque for purposes of exhibition and parade, and the several thousand troops of all services that are to participate in the ten days' tournament at Toledo will give the Middle West the best notion that they have ever had of how our army is constituted and what its special departments have to do. Since we must have an army, it is highly praiseworthy to make it efficient and in so far as possible to have the enlisted man feel an interest and a pride in what he is trying to do for himself and for the country.

*Toledo's
Energy and
Progress*

Toledo lies on Lake Erie, at the mouth of the Maumee River, and the tournament is to be held in the large Bay Park which fronts upon both the river and the bay. The project is under the joint auspices of the Chamber of Commerce of Toledo and the War Department, and so far as Toledo is concerned is part of a systematic movement directed by the Chamber to instruct and develop the city and to make it a more worthy and valuable center for the country that surrounds it. Toledo has shown many evidences of a high civic and municipal spirit in recent years, and the Chamber of Commerce is steadfastly devoting itself to the protection of the public health and the things that minister to the refinement and beauty of the town, as well as to its transportation interests and commercial prosperity. One of the things planned for the present season is a great summer carnival which will lay particular stress upon the use of the river, bay, and lake for motor boats and pleasure craft. As the years go by, many of our towns and cities which were in earlier days ill-appointed, with badly kept streets and no air of civic dignity or pride, are showing a vast change in their dress and manners. When our cities and towns of moderate size devote intelligent attention to their common

concerns they become so attractive and pleasant that they draw a desirable class of new population and give added guarantees for future prestige and prosperity. There is no municipal asset of higher value than public order and cleanliness and a proper care for the streets, parks, and other appointments that belong to self-respecting communities.

*Pageants
and
Anniversaries.*

The historical pageant, which in England has become an established institution, is becoming more and more popular in this country. It was employed with success in connection with Philadelphia's municipal celebration last year and on several similar occasions it has been found to add an attractive feature to anniversary programs. Recently a group of artists and writers who have their homes in Westchester County, within the New York commuting zone, conceived the idea of commemorating in this manner some of the notable episodes in Westchester history. The performance was given on May 31 at Bronxville, in the presence of the Governor of the State and other distinguished guests. The representation of events in Colonial and Revolutionary history was based on a faithful study of contemporary records and was remarkably vivid and convincing. In some of the scenes descendants of the original actors took part. All in all, the Westchester pageant not only provided a novel spectacle, but it had a distinct educational value. The Canterbury Pilgrimage of Chaucer's time is to be repeated this summer at Gloucester, Mass. The Champlain tercentenary celebration to be held on Lake Champlain on July 5-7 will afford opportunity for striking spectacular effects. The first day's proceedings will take place at Crown Point. On the following day exercises will be held at Fort Ticonderoga, where addresses will be made by President Taft, Ambassadors Bryce and Jusserand, Governor Hughes, of New York, Governor Prouty, of Vermont, and Mr. Hamilton W. Mabie. On July 7 the celebration will end at Plattsburg with a reception to President Taft by the Catholic Summer School of America, an Indian pageant, and a military parade. Among the speakers will be Senator Root, Cardinal Gibbons, Postmaster-General Lemieux, of Canada, and Sir Lomer Gouin, Premier of Quebec. The next important anniversary occasion will be the Hudson-Fulton celebration at New York, which will begin on September 25 and continue a fortnight.

*Hawaii
and the
Japanese.*

The more or less indefinite suspicions and rumors that have found their way into so many newspaper articles during the past few months as to the possible hostile designs of Japan upon our possessions in the Pacific were revived last month by the agitation in Hawaii over the strike on the sugar plantations. Out of a total population of 154,000 in the year 1900 more than one-third (to be precise, 61,000) were Japanese who cannot become naturalized American citizens and who, therefore, have no vote, but who, nevertheless, exert a most powerful influence upon political, business, and social conditions. To-day the Japanese preponderance is considerably greater. They have two daily newspapers and control more than one kind of business in the islands.

*A
Political
Strike?*

Early in May some 8000 Japanese laborers on the sugar plantations of the island of Hawaii went out on strike, demanding a 40 per cent. increase in wages. A search made by the authorities in the offices of the Japanese newspaper, the *Jiji*, and of the headquarters of the "Higher Wage Association," an organization of Japanese for their own economic improvement, brought to light letters and documents which were regarded as evidence that these Japanese strikers were conspiring to overthrow the American administration and obtain political control of the islands. On June 12 fifteen of the strike leaders and newspaper editors were indicted for conspiring to incite disorder, three of them for conspiring to murder. The leaders immediately appealed to Baron Takahira, the Japanese Ambassador at Washington, asserting that the authorities had entered the office of the *Jiji* without due process of law, thereby violating the treaty rights of the editors now under arrest. The Ambassador, however, promptly, —and properly,—disavowed any intention of taking action in the matter, or even of officially reporting the occurrence to Tokio, until the result of the local trial had become known. Meanwhile, according to later reports from the islands, the strike is wearing itself out.

*The
Troubles of
Cuba.*

Financial problems are producing conditions in Cuba disquieting not only to the Cubans themselves, but as well to the people of the United States. During the past few weeks there have been persistent reports that not only does the republic's budget for the current year provide for larger expenditures than present revenues can possibly meet, but that Cuban political methods and conditions are making national solvency an uncertain quantity. It is being reported also that under the independent government the authorities have begun to neglect sanitary measures, and, indeed, have dropped the campaign against yellow fever. These facts, taken together with the Cuban failing of lavishing enormous expenditures on diplomatic representation of questionable value, and the quite evident inability on the part of President Gomez to withstand the pressure of grasping politicians, have caused a revival of the discussion as to whether the time may not soon come when the United States must again intervene. President Taft and the State Department are watching Cuban affairs very closely just now.



GENERAL GOMEZ
PRESIDENT OF CUBA.

(Thinking about a possible third American intervention.)

From *Figaro* (Havana).

*Cuba
and Spain's
Debt.*

The report last month that the question of Cuba's responsibility for a portion of the Spanish public debt had been raised seriously in Madrid was also disquieting. The Spanish contention is that in the negotiations which resulted in the Treaty of Paris between Spain and the United States, in 1898, the American envoys declined to make a decision on this point, holding that the sovereignty had descended to the Cuban Republic and not to the United States, although the American Commission maintained that, from both a moral and legal point of view, Cuba could not be held responsible for this debt. The Republic now having assumed sovereignty, the Spanish Government considers that the time has arrived to press the claim. It is not necessary here and now to discuss the attitude of the United States in the event of a serious action of this kind by Spain. It would be difficult, however, to imagine the Cubans, or any other independent people, agreeing to accept

responsibility for loans procured chiefly to keep them in humiliating and cruel subjection to a foreign state.

*Colombia
and
General Reyes.*

General Rafael Reyes was re-chosen President of the republic of Colombia as a result of the congressional elections held in that country during the first week of last month. Dr. Reyes, who has just paid a short visit to the United States, has a strong and intellectual personality, and his administration has been a splendid one for his country. He has remodeled the school system, modernized the tax laws, established a national bank, made the gold dollar the monetary unit, extended the postal and telegraph service, reorganized river navigation, and granted concessions for new railroads. Church no longer dominates State in Colombia. The army has been reduced from 12,000 to 6000 men, and it is chiefly employed in building roads. The resources of the country, which are immense, are being steadily developed. According to reliable reports, however, the congress which elected General Reyes will not be in favor of the triple treaty between the United States, Colombia, and Panama, an outline of which was presented in these pages in our issue for April. Late in June it was rumored that, because of this difference between President and Congress, General Reyes had resigned his office. Colombia has settled her long standing dispute with Venezuela, and the Marquis Cobo has been appointed Colombian minister to Caracas, the first representative of his government to be accredited to the Venezuelan capital since the beginning of the Castro régime. It is interesting to note, in passing, that early in June a new cabinet came into office in Peru, and that a protocol for submitting to arbitration the Emery claim between the United States and Nicaragua was signed in Washington on May 25.

*Death of
the Brazilian
President.*

The death of President Penna, of Brazil (on June 14), was probably the most important piece of news which came to the world from South America last month. Dr. Affonso A. Moreira Penna was a perfect type of South American statesman, besides being a scholar and a scientist of more than local reputation. His death cannot fail to have an important effect upon the present day politics of Brazil. That vast republic is already in the first stages of a Presidential campaign, which will terminate on May 10 next year, when a

President will be elected to succeed Dr. Penna. In the meantime the Vice-President, Dr. Nilo Peçanha, will administer the government. A campaign has already developed considerable opposition between the candidate favored by Dr. Penna, Dr. David Campista, Minister of Finance in the present Cabinet, and Marshal Hermes R. da Fonseca, until recently Minister of War, who is the choice of the opposition. The death of President Penna removes the principal support from Dr. Campista's campaign and may result in his withdrawal from the race. Marshal Fonseca, however, has been conducting a campaign in which the military aspect has been, perhaps, too prominent for the approval of the Brazilian voters, and his election is not a foregone conclusion. Some of the extensive public works the late Dr. Penna initiated and was pushing for the benefit of Brazilian commerce and public life are described in another article in this review and whose portrait we publish on page 95.

*Is Europe
Warship
Mad?*

All Europe, it would seem, has gone crazy over the naval armament question. The feverish race of England and Germany in the building of great modern engines of destruction



JOHN BULL'S GERMAN SCARE.

(Its latest development, according to the cartoonist of *Uk*, is a thorough search of the Thames River for German spies.)

has apparently been communicated to the rest of the continent, and France vies with Russia, Austria challenges Italy, and even Turkey menaces Greece with a warship-building program which mounts ever higher and higher, until the end can be nothing less than national bankruptcy, if not complete national economic prostration. The naval program approved by the French Cabinet early last month involves an expenditure of \$600,000,000, covering a period of ten years. This provides for the construction of six *Dreadnoughts*, six other battleships, and four armored cruisers. On June 16 the keels of four Russian battleships of the greater *Dreadnought* type were laid in St. Petersburg by the Minister of Marine. These, it is expected, will be the equal in armament and gun efficiency of any battleships afloat at the time of their completion. Austria has already determined upon the building of four *Dreadnoughts*, and the Italian naval program includes three vessels of this type. The ambitious new régime at Constantinople is aiming also at attaining power on the sea, and it is reported that the threatened tension between Turkey and Greece over the Cretan question has set the government at Athens to work upon a naval scheme astonishingly dispro-

portionate to the territorial extent and financial position of Greece. The entire continent has apparently entered upon a mad race for naval power.

*The
Apprehension
in England.*

Although the plans of the British naval maneuvers of early June and the actual results accomplished are still a secret, it is known that during the three days' annual maneuvers more than 350 warships were mobilized upon the east coast of Scotland. One of the three fleets into which this great force was divided, we are told, was designated to represent a German invading force, and in the hypothetical battle that was fought every possible move in an actual hostile invasion was considered and its "check" worked out. While John Bull has, of course, derived a modicum of satisfaction and comfort from the offers of Canada, Australia, and New Zealand to build battleships for the British Navy, it is evident that the British mind is still much disturbed over the question of the possible (Englishmen are beginning to call it probable) war with Germany. In very pessimistic speeches in Parliament last month, and at public gatherings throughout the United Kingdom, British leaders made grave statements, which show that British apprehension of a German attack is now a much deeper laid and more serious matter than the popular hysteria which several months ago greeted the appearance of Major du Maurier's sensational play, "An Englishman's Home."

*Lord
Rosebery's
Pessimism.*

At the British Press Conference, held in London in the early part of June, Lord Rosebery, speaking to more than a thousand British newspaper men and their fifty-seven guests from the colonies, asked them to carry to their people the message, that the situation "at home" is indeed ominous, and that England is straining every nerve to keep up with other nations in arms. Foreign Secretary Sir Edward Grey said "the political weather is sultry," and continued:

If the navy fails it will be useless to discuss any other subject. To keep what we have got, to consolidate and develop, to quarrel as little as possible with other peoples, and to uphold in the counsels of the world the ideals of Great Britain,—this is our aim. With so much at stake the maintenance of the navy must be the first consideration, not only for the home Government, but for all the self-governing dominions of the empire.



ASTONISHING GROWTH OF THE DREADNOUGHT TREE.
(And discomfiture of John Bull and German Michel.)
From *Wahre Jacob* (Stuttgart).

The "Rebarbarism" of Europe.

Other speeches, by Secretary of War Haldane, Field Marshal Earl Roberts, and Mr. Arthur Balfour, leader of the opposition in the House of Commons, struck the same pessimistic note. Mr. Balfour declared that the fate of Australia, New Zealand, Canada, South Africa, and India will not be decided in the Pacific or Indian oceans. The North Sea, the English Channel, and the immediate neighborhood of the British islands, he said, will be the theaters in which "our Armageddon will take place." The only break in the

series of militant speeches on this occasion was the address of Lord Morley, Secretary of State for India, in which he denounced the reversion to arms as the "rebarbarism of Europe," and called upon newspaper men throughout the world to work for peace among the nations. The press, Lord Morley insisted, is more responsible for the war fever than all the officials and diplomats put together.

What is Germany's Aim?

Across the Channel, during these same momentous days, prominent Germans were delivering speeches justifying their own country in her naval policy and pointing to perfidious Britain as the sole danger to the world's peace. On the very day that Lord Rosebery was delivering the speech already quoted from, Admiral von Koester, the leading spirit in the German Navy League was addressing that organization at Kiel. The German admiral's speech was in substance a declaration that an understanding with England on the question of limiting armaments is impossible, an understanding which Germany could not consider under any circumstances without "permanently endangering her prestige and independence in commerce." Here are two great nations, each announcing its military purposes as entirely pacific. Each is arming solely to keep the peace, but each is arming against the other. All pretense has been cast aside, and in Germany it is England and in Britain the Fatherland that is the enemy.



THE SUFFERINGS OF THE BRITISH LION.

He imagines he has German warships and war balloons close behind him. From the *Amsterdammer* (Amsterdam).

Britain Really Desires Peace.

There can be very little doubt that the temper of the present British Government is sincerely pacific. The Liberal ministry is spending money on the navy only with the greatest of reluctance. It had checked building and had reduced the annual expenditure until public sentiment, aroused by the activity of Germany, forced a change of policy. The British naval estimates during the past five years have been reduced (so the *London Daily Mail* points out) by no less than \$20,000,000, while the German estimates during the same period have been increased by \$50,000,000. Moreover, it was the British delegates at the last Hague conference who offered to take up the principle of a reduction of armament. The government at Berlin, however, declined to accede to the British suggestion. And now comes Admiral von Koester, as has already been noted, stating that any understanding with Great Britain on this subject is impossible for Germany. For what is Germany preparing and for how long will her already depleted purse stand the strain?

How Are Americans Affected?

The fact now generally recognized in Europe, that the United States has a navy taking second rank only to that of Great Britain, has raised the question several times in the British Parliament as to whether, in determining the two-power standard program, the United States should be considered. Premier Asquith contends that "while the range of British vision should not be limited to Eu-

rope, on the other hand, when considering the combined effective strength of any other two powers of the world, for aggressive purposes, one must have regard to geographical position."

In dealing with a remote power whose naval base is 6000, 8000, or 10,000 miles away, with no convenient coaling stations, it is elementary common sense not to treat that power as of the same effective value as a power with a naval base a hundred miles or so away. Therefore, the United States cannot be regarded as one of the two powers which would have to be taken into account, for, although the United States is the second among the naval powers of the world, she cannot be treated as of the same efficiency for aggressive purposes toward England as France, Germany, or Austria.

Comment in the British press goes further than Mr. Asquith. It generally insists that American and British interests are identical because Britain's danger is ours. Says the *London Daily Mail*:

Some American statesmen seem to already realize that England is a breakwater against the wave which may not be fully spent until it washes upon the shores of South America. The movement for expansion from central Europe, which is one of the most notable phenomena of our time, and which proceeds with all the force and tragic possibilities of a great natural convulsion, must break upon our coasts first, but if we were driven from our hold upon the sea it would roll swiftly across the wide Atlantic.



WILL THE NATIONS ACTUALLY FIGHT IN THE AIR?

MARS: "As yet Zeppelin does not seem able to lift me from solid earth."

From *Wahre Jacob* (Stuttgart).

*Our Future
Relations with
Canada.*

The American attitude and sympathies in the great Anglo-German contest, which, alas for our ideals of universal peace! seems nearer and more certain as the months go by, are likely to be influenced, not so much by considerations of alleged kinship of blood and tongue, as by certain tendencies in the way the idea of British Imperial unity is being considered by Britain's colonies. We are not greatly concerned with the projects of Australia and New Zealand to build ships of war for their mother country. There is, however, quite a different significance in the frequently repeated determination of the Dominion of Canada to build a navy of her own, not for presentation to the mother-land, but "to be used as an all-Canadian arm of defense." It was plainly admitted by Hon. L. B. Brodeur, Canadian Minister of Marine and Fisheries, before his departure late last month for the Imperial Defense Conference at London, that, "with the consent of England, Canada will commence immediately to lay down a navy of her own, along plans that experts have already decided best agree with local conditions." American relations with a non-militant Canada are clear-cut and inevitably those of a deeply interested friend. Between the American people, however, and a Canada aggressive and military, and therefore conceivably vulnerable to foreign invasion, there are grave possibilities of differences and of radical political changes that merit the earnest consideration of our Canadian brethren.

*A Real Triumph
of The Hague
Court.*

Although only barely noted in the daily press, the decision of the Permanent Court of Arbitration at The Hague, rendered late in May, was, perhaps, the most significant European happening of the past half year. In the Casablanca case the court recognized the position taken by France as just in law, and declared that no precedent can be quoted for the German argument. It will be remembered, as set forth in these pages at the time, the secretary of the German Consulate at Casablanca, Morocco, in November last endeavored to ship to Europe some German deserters from the French Foreign Legion who were not of German nationality. The French military authorities sent a body of troops, which seized the German deserters on the way to the ships, ignoring the safe conduct signed by the German Consul. Much discussion and no little bitter feeling

was occasioned by this incident, and for a time it was even believed that open hostilities might result between the two countries. France secured her first victory in bringing about the reference of this case to The Hague Court. The affair itself was of minor importance. The supremely important thing is that the verdict is loyally accepted by both nations, and that it appeals to the sense of justice and fairness of both. The troublesome dispute is settled and two great nations are brought into more friendly relationship, and the tribunal at The Hague is confirmed in the confidence of the world.

*Conditions
in
Russia.*

Russian political and economic conditions are so unfamiliar to Americans, despite the mass of newspaper writing on the subject since the war with Japan, that it is next to impossible for Western peoples to fully grasp the intensity of the struggle which is ever going on in the Czar's Empire between the old and the new orders. On another page this month (93) we present an outline, condensed from an article in a sober, conservative Russian journal, of the present "abysmal corruption and chaos" that exists throughout the Empire. The Czar is not only in mortal fear of his own subjects, but dare not trust an innocent merchant ship of a friendly power to come within a mile of his sacred presence. On June 17, when Czar Nicholas and Emperor William were exchanging visits from their yachts in Finnish waters, a small British steamer accidentally approached nearer to the Imperial vessels than was thought safe, and a Russian gun-boat immediately opened fire, causing considerable injury to the British ship and wounding its engineer. While some excitement was occasioned in England over the reports of this incident, it was accepted by Great Britain generally as another case of "nerves," such as accounted for the attack by the Russian Baltic fleet on British fishermen in the Channel in October, 1904.

*Czar
Meets
Kaiser.*

Of course it will never be actually known just what was discussed between the two monarchs, but it is believed in continental capitals that the Kaiser did his best to soothe the feelings of his brother monarch, which have been somewhat ruffled over the aggressive Austro-German policy in the Balkans, and agreed to support Russia's policy in Turkey; that the reported entrance of Roumania into

the Triple Alliance (it being generally recognized that Italy is drifting toward France) was discussed, and that on his part Czar Nicholas made the best explanations possible of the now generally credited "partition" of Persia between Russia and England. The last named accomplishment, of course, cannot fail to irritate the Government at Berlin, considering the magnitude of Germany's actual and potential interests in the near East. The Russian Duma was prorogued on June 15, to assemble again on October 23. While the struggle between Premier Stolypin and the Duma over the latter's power to control the purse is as yet undecided, during the session just closed a good deal of important legislation has been introduced and seems to be in a fair way to enactment into law during the session of the coming Duma. Peasant land holdings, religious toleration, and reform of the judicial procedure have been discussed and bills embodying proposed laws on these subjects passed by the Duma and only await approval by the Council of the Empire.

*The
Lopukhin
Case.*

While most of the dispatches from Russia during the past few weeks have been taken up with descriptions of the meetings between the Czar and the German Kaiser, the Russian people have been discussing with an intensity unequaled since the time of the revolutionary outbreaks several years ago the trial of Aleksei Lopukhin. This official, it will be remembered, revealed the treacherous and murderous activity of Azev as a spy of the revolutionists and an agent provocateur of the Russian Government. The doings of Azev and the influence of the system he represented were set forth in these pages in April. Despite the evidence Lopukhin was condemned to five years' penal servitude for "helping the social revolutionary organization by revealing Azev's relations with the government." On this extraordinary charge conviction was made by a court composed of the Russian Senate. This judgment was too much even for Russian justice, and the highest officers of the State, cabinet ministers, senators, and other eminent leaders who crowded the courtroom at the trial, privately condemned the verdict. The press comment is very bitter and even conservative journals like the *Novoye Vremya* are predicting that the case will exert as pernicious an influence in Russia as the famous "affaire Dreyfus" did in France.



CRETE, SHOWING THE ISLAND'S PIVOTAL POSITION IN EUROPEAN, ASIATIC, AND AFRICAN POLITICS.

Turkey
us.
Greece Again.

While the new Turkish régime now seems to be firmly in the saddle, it faces, even with Abdul Hamid out of the way, more than one serious and perplexing problem. Anti-governmental disorders in both the north and the south, in Albania and on the Greek frontier, last month necessitated the sending of considerable bodies of troops to suppress what at times seemed incipient revolutions. The new government is beset by reactionary Mohammedans and radical Christians, not to mention the many other less numerous races and creeds which now call themselves Ottoman. With the Albanians, a generally favored people in Turkish territory, war seems to be the normal state of existence. Special privileges from Abdul Hamid made them regard the ex-Sultan with great affection, and ever since his deposition they have been restive. A revolt among them of large proportions was quelled late in May. The Greek trouble is partly religious and partly political. Greeks were the last Christian people who passed under the Turkish yoke and the first to escape from it. Most of the Greek land is now independent, but a large part of Macedonia, including all the coast of Ægea, most of the islands of the Archipelago, and the greater part of Crete are still what the

Greeks call "Hellas Unredeemed." Greek patriotism will not be satisfied with anything less than all the ancient Greek land. Greek patriotism, perhaps, more than the Greek faith is responsible for the propaganda by rifle and dagger in Macedonia and for the ardent campaign of the Cretans to be united with the motherland.

What Is to
Be Done
with Crete?

Before the end of summer the combined chancelleries of Europe must make a decision, if such has not already been made, that is likely to have momentous international significance. By the middle of the present month, according to the agreement made between France, Great Britain, Italy, and Russia in 1898, the European troops must have completely evacuated the island of Crete and the Cretans left to administer their own government and police their own territory. Crete, it will be remembered, although Turkish territory for nearly three centuries, has never submitted to the authority of the Porte. In 1898, after the Turko-Greek war, the four powers already mentioned set up Cretan autonomy under the nominal suzerainty of the Turkish Sultan, but with a Christian Governor, Alexander T. Zaimis, who is known as High Commissioner. Early in

October of last year, after Bulgaria had declared her independence of Turkey and Austria had announced the annexation of Bosnia and Herzegovina, Crete informally annexed itself to Greece. The powers withheld their assent to this move, but since that time the Cretans have administered their government as though actually a part of Greece, and the Greek people (including, it is reported, the government at Athens) regard the island as their own.

*The Powers
and the
Porte.*

To withdraw the international troops at this time would undoubtedly result in a rebellion against the last vestiges of Turkish rule. Such a rebellion would receive the almost unanimous support of the Greek people. On the other hand, the present régime at Constantinople has formally requested France, Great Britain, Italy, and Russia to reconsider their decision regarding the evacuation of the island. More than one Turkish minister has publicly declared that Turkey means to hold Crete even at the cost of a war upon Greece. The German Kaiser, who was not a party to the original arrangement of Cretan government, but has since become a dominant force in Balkan politics, has already begun to exert pressure (so British and French journals declare) upon the four powers to postpone the evacuation of Crete. German influence at Constantinople, which was waxing ever greater under the Hamidian régime, has undoubtedly lost ground since the advent of the constitution, and the Kaiser's support of the Turkish position in the Cretan matter is presumably an attempt to regain influence at the Golden Horn. By the middle of last month it was reported that the European chancelleries had agreed to let their gendarmerie remain temporarily at their posts in Crete until some generally satisfactory way can be found out of the difficulty.

*"Cleaning
Up" in
Asia Minor.*

If the military commission sent from Constantinople to Adana does its work fearlessly and well much will be accomplished toward actually pacifying the disturbed region of Asia Minor and restoring the feeling of calm and security which is now shared in Constantinople by foreigners and Turks alike. This commission will be morally and physically supported in its work by ten battalions of troops (aggregating 5000 men) from the Constitutional forces at the capital. In addition to

these, there will be the moral effect of the presence of European and American warships in the Mediterranean, less than fifty miles from where the commission sits. Kenan Pasha, the president of the commission, announces that the same swift and vigorous justice will be dealt out to the offenders, Moslem and other, in Asia Minor as was meted to the mutineers and paid supporters of Abdul Hamid in Constantinople. He adds that although it is believed there has been a widespread Armenian conspiracy these poor, oppressed subjects of the Turkish crown will receive even-handed justice in the investigation. It is interesting to note in passing the invitation of Ahmed Riza, president of the Turkish Parliament, communicated to Hacham-Bashi, the spiritual head of the Jews in Turkey, and extended to the Jews of Russia and Roumania, to emigrate to Turkey. In addition to making the offer of Mesopotamia for a Jewish state, noted in these pages last month, the government of Sultan Mehmed V. has openly declared that it will abolish all restrictions against Jewish immigration and confer full citizenship upon Jewish immigrants immediately upon their arrival.

*The
New
Jerusalem.*

Nothing is, perhaps, more dramatically illustrative of the change that has come over the government and political life of Turkey than the really startling things that have already been done in Jerusalem under the constitutional régime of the new governor. This official, who came to power upon the triumph of the Young Turks last summer, in his "letter to the citizens" declared:

I have formed a commission composed of competent persons, whose duty it will be to inves-



WHEN GREEK MEETS TURK THEN COMES THE END OF CRETE.

From the *Inquirer* (Philadelphia).

tigate the agricultural needs of the province and to submit to me a report of the result of their investigations. I convened a meeting of merchants, with the object of creating a Chamber of Commerce which can serve as a consulting body. . . . Being assured of the extreme need of water for the town, I have confided to an energetic man the consideration of a project to bring into Jerusalem the waters of the spring Arroub, and also the formation of a company which is to procure the capital necessary for the work. I have placed myself in communication with the Jaffa-Jerusalem Railway Company, and have asked them to consider the question of a junction of their railroad with the Haifa-Damascus line, and am endeavoring to promote, by the construction of other railway lines, the easy and free access to all parts of the country of travelers arriving at Jaffa and Jerusalem. In conclusion, I have charged the municipality with the earnest consideration of the speedy sanitary canalization of the town.

A new economic impulse has begun to stir Palestine. Its agricultural and mining possibilities are being developed and even manufacturing has taken a foothold. The modern city of Jerusalem, which numbers now more than 80,000 inhabitants, is growing rapidly, we are told, the most rapid growth taking place outside the old walls into a new city in which the oldest residence is less than twenty-five years of age.

American Finance in China. With a steady progress at a rate scarcely realized by Western peoples, the political, social and economic development of the Chinese Empire is proceeding. In this REVIEW we have chronicled from time to time the solid, though rapid, advance in education, and in the adoption of modern business methods, which are characteristic of the new China. Astonishing progress has been made in railroad building during the past decade. According to the latest official figures, there are now more than 4000 miles of railroad in the Chinese Empire, most of it constructed during very recent years. In the foreign influence which has assisted in this progress, American capital and trade have been an important and increasingly large factor. During the period between 1897-1908 the share of the United States in the total foreign commerce of the Chinese Empire was between 9 and 10 per cent. A noteworthy evidence of the fact that our merchants and financiers are awakening to a realization of the importance of China as an actual and potential field of commerce is found in the determination, announced from the State Department last

month, of a powerful group of American bankers to claim the right to participate in the new Chinese loan of \$27,500,000 for the building of the Hankow-Sze-chuen railway, an extension of the Canton-Hankow line. The intention of the American bankers to participate in this loan was communicated to the Chinese, British, French, and German governments, through our representatives abroad, the claim being based upon assurances given the American Minister to Peking in 1904 by the Chinese Government that both American and British capital would be invited to finance this railway. The contract for the loan was signed on June 6 by representatives of the British, French, and German bankers. It is understood that although the application was made rather late, and despite the formal objections of the British Government, the American claim, having foundation in legality and equity, will be pressed. Last month the first American bank in China was established at Peking.

The United States of South Africa.

By the results of the referendum held early last month in Natal, as to whether or not that colony should join the South African Union, the new nation of English speech becomes an actual fact. The legislatures of the Transvaal, Cape Colony, Orange River Colony, and Natal, have now confirmed the constitution as adopted at the Bloemfontein convention last year, and these colonies will hereafter form a single nation with a strongly centralized government. This constitution is in the form of a bill which will now be brought before the Imperial Parliament at London for ratification. In general its provisions are similar to those of the Canadian constitution, except in the highly important particular, that in addition to reserving to the Federal Government all powers not expressly delegated in the organic act to the provinces, it expressly leaves no exclusive powers whatsoever to the provincial authorities. Provision is made for the future admission of Rhodesia to the union. English and Dutch will be the official languages on exactly equal legal terms. In the case of the future transfer of native land to the new Commonwealth, the sale of liquor is to be absolutely prohibited in the lands acquired. The first assembly which will gather as soon as the Government at London has ratified the constitution will consist of 121 members.

RECORD OF CURRENT EVENTS.

(From May 20 to June 20, 1909.)

PROCEEDINGS IN CONGRESS.

May 22.—The Senate devotes the day to discussion of the lumber schedule of the Tariff bill.

May 24.—In the Senate, the free lumber amendment to the Tariff bill introduced by Mr. McCumber (Rep., S. D.) was defeated by a vote of 56 to 25....The House passes the Philippine Tariff bill and considers the bill amending the laws of Porto Rico.

May 25.—In the Senate, Mr. Foster (Dem., La.) and Mr. McEnery (Dem., La.) speak in favor of a duty on sugar; Mr. Beveridge (Rep., Ind.) speaks in support of his contention that President Taft has been a consistent advocate of a downward revision of the Tariff; Mr. Shively (Dem., Ind.) makes his maiden speech.

May 26.—In the Senate, Mr. Burrows (Rep., Mich.) and Mr. Smoot (Rep., Utah) speak in favor of retention of the sugar duties, while Mr. Bristow (Rep., Kan.) urges material reductions.

May 27.—In the Senate, Mr. Aldrich (Rep., R. I.), in charge of the Tariff bill, announces that he will not agree to a vote on the income tax in advance of the Tariff schedule; amendments to the sugar schedule eliminating the Dutch standard test and reducing the duty on refined sugar from 1.90 to 1.825 cents a pound are defeated....The House considers the Porto Rican bill.

May 28.—The Senate completes the sugar and tobacco schedules of the Tariff bill and takes up the agricultural schedule.

May 31.—In the Senate, Mr. Aldrich (Rep., R. I.) withdraws the Finance Committee amendments on bacon, hams, lard, fresh beef, etc.

June 1.—In the Senate, consideration of the cotton cloths schedule of the Tariff bill is begun and a speech on this subject is made by Mr. Lodge (Rep., Mass.); it is announced that night sessions will be held to dispose of the Tariff bill; Mr. Cummins (Rep., Ia.) offers an amendment to the Tariff bill providing for a tax of 2 per cent. on all incomes of individuals or corporations over \$5000 a year.

June 4.—In the Senate, Mr. La Follette (Rep.,

Wis.) speaks on the Tariff bill; at the night session Mr. Aldrich (Rep., R. I.) explains and defends the Finance Committee's amendments to the cotton schedule.

June 5.—In the Senate, several votes are taken on the subject of changing from ad valorem to specific duties on cotton cloth, the recommendations of the Finance Committee being sustained in each case.

June 7.—The Senate completes the cotton schedule of the Tariff bill, the Dingley rates on hosiery being restored....The House passes the bill amending the law under which Porto Rico is governed.

June 8.—In the Senate, the wool schedule of the Tariff bill is under discussion; Mr. Dolliver (Rep., Ia.) proposes an amendment to assess duties on woollens on an ad valorem basis, according to the shrinkage of the wool; Mr. Smoot (Rep., Utah) and Mr. Warren (Rep., Wyo.) uphold the Finance Committee's recommendations on the schedule.

June 9, 10.—The Senate considers the wool schedule of the Tariff bill at day and night sessions, sustaining the Finance Committee on all

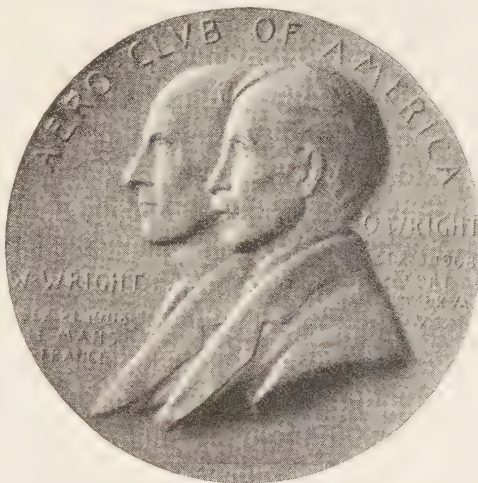
questions put to vote.

June 11.—The Senate adopts the motion of Mr. Aldrich (Rep., R. I.) to postpone consideration of the income-tax amendment to the Tariff bill to June 18; the wool schedule is completed.

June 12.—In the Senate, the Tariff bill passes the second-reading stage, the most important action being the retention of works of art on the free list.

June 14, 15.—The Senate considers the provision of the Tariff bill regulating the admission of articles from the Philippines into the United States; Messrs. Depew and Root (Rep., New York) and Mr. Owens (Dem., Okla.) make addresses.

June 16.—President Taft sends a message to Congress recommending the enactment, as part of the pending Tariff bill, of a 2 per cent. tax on the net incomes of all corporations and the passage of a resolution proposing to the States



Photograph by Harris & Ewing.

AERO CLUB MEDAL PRESENTED TO THE WRIGHT BROTHERS BY PRESIDENT TAFT ON JUNE 10.



PROFESSOR ERNEST FOX NICHOLS.
(President-elect of Dartmouth College.)

an amendment to the Constitution granting to the Federal Government the right to levy and collect an income tax without apportionment among the States, according to population....In the Senate, the Philippine free trade section of the Tariff bill, with amendments, is adopted by a vote of 42 to 28; Mr. Aldrich (Rep., R. I.) offers an amendment to the zinc schedule substituting a graduated scale of rates on zinc ore in place of a duty of one cent a pound as provided in the House bill.

June 17.—The Senate considers the print paper and wood pulp provisions of the Tariff bill.

June 18.—In the Senate, the Finance Committee's amendment to the Tariff bill placing a duty of \$4 a ton on print paper is adopted by a vote of 44 to 32; William Lorimer, of Illinois, takes the oath as Senator.

POLITICS AND GOVERNMENT—AMERICAN.

May 23.—Governor Hughes, of New York, disapproves many items in the appropriation bills as passed by the Legislature.

May 26.—President Taft accepts the resignation of S. N. D. North as Director of the Census and appoints E. Dana Durand to succeed him....The Illinois Legislature elects Congressman William Lorimer (Rep.) United States Senator to succeed Albert J. Hopkins (Rep.), thus breaking the four months' deadlock.... Governor Hughes, of New York, signs the Travis-Robinson bill to permit the building of

additional subways in New York City by private capital, public funds, or by assessments on the property benefited....A heavy defalcation in the office of the treasurer of Erie County, N. Y., is announced at Buffalo....District-Attorney Jerome, of New York, answers his critics and gives an account of his administration at a public meeting....Robert J. Wynne resigns as Consul-General at London and John L. Griffiths, Consul-General at Liverpool, is appointed to succeed him.

May 27.—Indictments are returned at Tulsa, Okla., against Governor C. N. Haskell and five others in the Muskogee town lot cases.

May 30.—Five prominent citizens of Denver are indicted for conspiracy to defraud the Government of coal lands, said to be valued at \$1,000,000.

June 5.—Secretary MacVeagh speaks at Chicago, and outlines the policies of the Taft administration.

June 15.—President Taft accepts the resignation of Francis E. Leupp as Commissioner of Indian Affairs and nominates Robert G. Valentine, of Massachusetts, Assistant Commissioner, to succeed Mr. Leupp.

June 16.—The Illinois Supreme Court decides the primary election law unconstitutional....At a mass-meeting in New York City a Committee of One Hundred is named to select a ticket for the municipal campaign....The committee appointed by Governor Hughes, of New York, to inquire into Wall Street methods makes a report in which many reforms are urged.

POLITICS AND GOVERNMENT—FOREIGN.

May 20.—The members of the Turkish Chamber of Deputies take the oath of office in the presence of the Sultan in Constantinople.

May 21.—The criminal court at Caracas, Venezuela, exonerates Cipriano Castro from the charge of plotting to kill Señor Gomez, acting-president of Venezuela, on the ground that the recent amnesty decree applied to him.

May 24.—The Turkish Senate and Chamber of Deputies vote confidence in the ministry.... The German Navy League opens its annual congress....Arrests are made at Adana in connection with the recent massacres.

May 26.—The Australian Parliament is opened at Melbourne.

May 27.—In the Australian Parliament, Mr. Fisher's Labor cabinet is defeated by the combination of Liberals and Conservatives under Mr. Deakin....Thirteen conspirators in the recent rebellion at Constantinople are hanged.

May 28.—The French Chamber of Deputies rejects a motion to restore to duty the postal employees dismissed for activity in the recent strike....An investigating committee asks that M. Thomson, ex-Minister of Marine of France, be prosecuted....The Russian Duma adopts the bill legalizing the sect of Old Believers....The German Liberals and Radicals join the Socialists in refusing to take part in further discussion regarding new taxation.

May 29.—In an attempt to overthrow the government of President Leguia, of Peru, many persons are killed and wounded; the President himself is captured, but is later released.

May 30.—The rebellion in Lima, Peru, is quelled by the troops....The French Senate Committee amends the workmen's pension bill so that specific contributions may be made annually by laborers and employers.

June 2.—A new cabinet is formed in Australia by Alfred Deakin.

June 6.—The Council of the Empire in Russia restores the appropriation for the navy, which was rejected by the Duma....Australia formally offers to present a *Dreadnought* to England.

June 7.—The French cabinet approves a naval program involving the expenditure of \$600,000,000 in ten years.

June 9.—The Russian Duma adopts the interpellation charging Dr. Dubrodin, president of the League of the Russian People, with organizing political murders.

June 10.—The British House of Commons passes the budget on second reading by a vote of 366 to 209; the Nationalists oppose the measure.

June 12.—A referendum held to decide whether or not Natal should join the South African union results in a vote of 11,121 to 3701 in favor of the step.

June 14.—The German Government introduces in the Bundesrath a supplementary taxation bill, which is expected to yield \$35,000,000....On the death of President Penna, of Brazil, Nilo Pecanha is sworn in as his successor.

June 15.—More than sixty Turkish officials of high rank are sentenced to imprisonment for complicity in the recent revolutionary movement....The Russian Duma is prorogued.

June 17.—The mobilization of the British fleet is practically completed.

June 18.—The French budget, introduced in the Chamber of Deputies, shows a deficit of \$21,000,000.

INTERNATIONAL RELATIONS.

May 22.—The Hague Court of Arbitration decides that both France and Germany were at fault in the Casablanca dispute.

May 25.—A protocol for the arbitration of the Emery claim is signed at Washington.

June 2.—The preliminary draft of the treaty between Venezuela and Colombia is signed at Caracas; Colombia agrees to cede territory on the Orinoco, Inrida, and Negro Rivers to Venezuela.

June 6.—Papers are issued in Curaçao permitting Dutch steamers to enter Venezuelan ports....The Peruvian Government cancels the exequatur of the Swedish Consul-General, at whose house the insurgents took refuge on May 29.

June 8.—Porto Rican officials take steps to stop the importation of lottery tickets from Santo Domingo.

June 9.—Henry C. Ide, the new United States Minister to Spain, is received by King Alfonso with full honors.

June 10.—Turkey requests Great Britain, France, Russia, and Italy to reconsider their decision to evacuate the island of Crete at the end of July.

June 11.—Soldiers of the French Foreign Legion, whose desertion caused the recent trouble with Germany at Casablanca, are sentenced to long terms of imprisonment.

June 13.—Twelve Turkish battalions repulse the attack of 10,000 Albanians in northern Albania....Thousands of persons having been killed by tribesmen in northwest Persia, Russian aid is asked.

June 14.—The Japanese editor arrested for conspiracy at Honolulu complains to his home government, charging violation of treaty rights.

June 15.—China, following the American protest, agrees not to ratify the foreign loan of \$27,500,000 for the construction of the Hankow & Sze-chuen Railroad....The powers accede



REV. MARION LE ROY BURTON, D.D.
(President-elect of Smith College.)

to the request of Turkey to retain their occupation of Crete temporarily.

June 16.—Orders are issued at Washington releasing the suspected filibustering vessels, *Nanticoke* and *Dispatch*, held in Virginian waters, on receipt of official information that they are the property of the Venezuelan Government.

June 17.—Indictments are found against rioting Japanese laborers in Hawaii; Japan declares she will not interfere....Czar Nicholas, of Russia, and the German Emperor meet near Helmsfors.

June 18.—The Canadian Railway Commission rules that it has jurisdiction over rates between America and the Dominion.

OTHER OCCURRENCES OF THE MONTH.

May 20.—The Imperial International Exhibition, at the "White City" in London, is opened by the Duke of Argyle....The statue of Dr. John Witherspoon, one of the signers of the Declaration of Independence, is unveiled in Washington, D. C....The Presbyterian General Assembly begins its annual session at Denver.

May 21.—The remains of George Meredith, the English novelist and poet, are cremated....The federal committee of the General Federation of Labor in France calls off the strike previously ordered....The United States battleship *Mississippi* is welcomed at Natchez, Miss., with a round of festivities....The fifteenth annual Lake Mohonk Conference on International Arbitration closes with speeches by Ambassador Bryce and Congressman Bartholdt.

May 22.—Lord St. Aldwyn, independent chairman of the Welsh Coal Conciliation Board at Cardiff, grants the reduction of $7\frac{1}{2}$ per cent. in the miners' wages demanded by the employers....A memorial service for George Meredith is held at Westminster Abbey....The ice blockade of the harbor of St. John's, N. F., is raised.

May 23.—The chief burgomaster of Berlin, Germany, and a number of councilors arrive in London as the guests of the London Corporation.

May 24.—Empire Day is celebrated in Great Britain....A heavy earthquake shock occurs at Messina, Italy, throwing down walls and causing a panic....Owing to the strike of locomotive firemen on the Georgia Railroad no trains are run over the line during the day....May wheat touches \$1.34 $\frac{3}{4}$ on the Chicago Board of Trade.

May 25.—The Congregation of Oxford University promulgates a statute for the establishment of a professorship of military history and a lectureship in Japanese....The commemoration of the centenary of the death of Haydn begins in Vienna....Andrew Carnegie arranges to give \$1,000,000 to establish a hero fund in France....Successful tests of the Grosse and Parsifal airships are watched by Emperor William of Germany....Commissioner of Labor Neill arrives at Atlanta and holds conferences in the strike of the Georgia Railroad firemen.

May 26.—King Edward's colt Minoru wins the English Derby....The Council of the Sorbonne, in Paris, confers upon Andrew Carnegie a medal in recognition of his founding of the Curie scholarships....*Zeppelin II*, the dirigible balloon, has a successful trial at Friedrichshafen....A slight earthquake shock is felt in Indiana, Illinois, Wisconsin, Michigan, and Iowa.

May 27.—The Prince of Wales makes an address at the opening of the International Congress of Applied Chemistry in London....It is determined at Atlanta to start twelve trains carrying mail only over the lines of the Georgia Railroad....The General Education Board announces its annual appropriations for the benefit of schools, colleges, and universities.

May 29.—Practically every street car line in

Philadelphia is tied up by a strike....The Patten wheat deal closes on the Chicago Board of Trade....The strike of the white firemen on the Georgia Railroad is declared off, both sides making concessions.

May 30.—Count Zeppelin, with a crew of nine men, makes a flight in his new airship from Friedrichshafen to Bitterfeld, 456 miles, in twenty-two hours, and starts on its return trip....More than thirty persons are killed and fifty seriously injured by a tornado which wrecks the village of Zephyr, Texas....The Georgia Railroad resumes the normal passenger service pending final settlement of the firemen's strike.

May 31.—All western Canadian lumber mills advance the price on common pine fifty cents per thousand feet....President Taft makes an address at the unveiling of a monument to the regular army at Gettysburg, Pa....The Georgia Railroad and its firemen agree to submit their differences to arbitration under the federal law.

June 1.—The Alaska-Yukon-Pacific Exposition at Seattle, Wash., is formally opened by President Taft pressing a gold telegraph key in the East Room of the White House.

June 3.—Earthquake shocks are felt in Portugal....A general strike of machinists is ordered in all the shops of the Baltimore & Ohio Railroad system.

June 4.—An agreement is reached between the Philadelphia Rapid Transit Company and its employees, the strike being declared off; this result, which is a victory for the men, is brought about by politicians.

June 5.—Princess Juliana, heiress to the throne of Holland, is christened.

June 7.—Dr. Charles A. Richmond is installed as president of Union College and chancellor of Union University at Schenectady, N. Y.

June 8.—A severe earthquake shock is felt at Copiano, a seaport of Chile....It is announced that an agreement to settle the \$30,000,000 suit brought by the Pennsylvania Sugar Refining Company against the American Sugar Refining Company has been reached....Prof. Ernest F. Nichols, of Columbia University, is elected president of Dartmouth College.

June 9.—The Canadian locks at Sault Ste. Marie are wrecked, the lower gates being rammed while two steamers are passing down through the ship canal by another steamer passing up; the damage is estimated at \$250,000....The endurance trophy in the national race from Indianapolis is won by the balloon *Indianapolis*; the distance trophy is won by the *University City*....The national Conference of Charities and Corrections is opened at Buffalo, N. Y.

June 10.—The Anglican Church pageant, in which more than 4000 persons take part, is opened at Fulham....The Cunard line steamer *Slavonia* is totally wrecked off the island of Flores, Azores, while bound from New York for Mediterranean ports; the passengers and crew are saved....President Taft presents to Orville and Wilbur Wright, the aviators, gold medals given by the Aero Club of America.

June 11.—An earthquake devastates several towns and villages in southern France; 100 are reported dead and 100 injured....The Russian

submarine torpedo boat *Kambala* is sunk by collision with the battleship *Rosvislav* in a series of night maneuvers outside the harbor of Sevastopol; the twenty men aboard her are killed.

June 15.—A new Chamber of Commerce is organized at Boston with a membership of 3000 and an income of \$100,000 a year.

June 16.—The French Institute divides the Osiris prize of \$20,000 between MM. Bleriot and Voisin for aviation work....The keels of four Russian battleships of the improved *Dreadnought* type are laid....Mrs. Julia Ward Howe receives the degree of Doctor of Letters from Brown University.

June 17.—Twenty-four new cases of cholera are reported in St. Petersburg....The city of Dayton, Ohio, begins a two days' celebration in honor of Orville and Wilbur Wright, the aeronauts.

June 18.—Ten deaths from cholera are reported at St. Petersburg within twenty-four hours....National, State, and city medals are presented to Wilbur and Orville Wright at Dayton, Ohio....A new and comprehensive plan for a New York City subway system, to cost \$100,000,000, is filed with the Public Service Commission.

OBITUARY.

May 20.—Prof. Jerome Schneider, fifty years a member of the Tufts College faculty, 85.

May 21.—Charles Green Bush, the cartoonist, 67....William Christie Herron, of Cincinnati, peace advocate and philanthropist, 66....Charles L. Allen, florist and writer on agricultural and horticultural topics, 81.

May 22.—Ex-Congressman Seth W. Cobb, of Missouri, 71....Dr. John J. Ward, for fifty years a well-known physician of Ulster County, New York, 75.

May 24.—François Emile Michel, the French artist and art critic, 81....Justice Guy C. Scott, of the Illinois Supreme Court, 46.

May 25.—William Chisholm, member of the legislative council of Nova Scotia, 77.

May 27.—Jules Ernest Naville, of Geneva, philosopher and educator, 93....Sir John C. Ready Colomb, formerly member of the British House of Commons, 71....Guillaume Dubufe, the French painter, 56.

May 29.—Ex-Governor Thomas T. Crittenden, of Missouri, 77.

May 31.—John Knowlton Arnold, the artist, 75....Eugene Gouin, member of the French Senate, 91....Henry Wolfsohn, musical manager, 67.

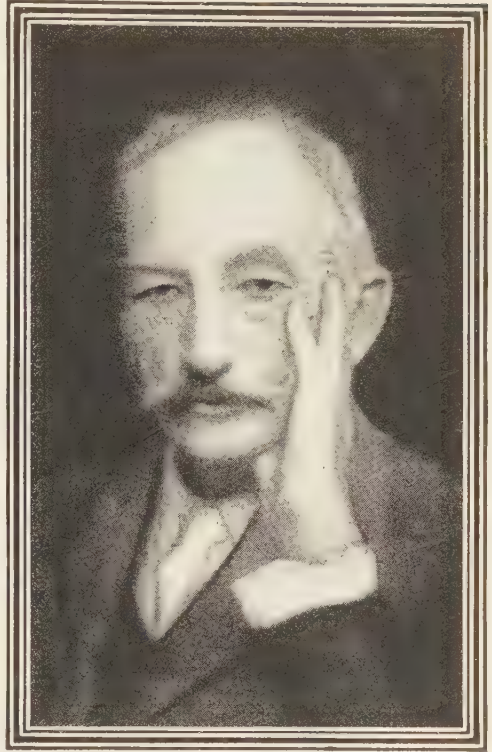
June 2.—Dr. Theodor Barth, the German Liberal leader, 60.

June 4.—Hippolyte François Alfred Chauchard, owner of the Louvre department stores, 81....Mrs. Anna Eliza Hubbard, a well-known Civil War nurse, 85.

June 6.—Archbishop Joseph Thomas Duhamel, of Ottawa, Canada, 68....Col. Alexander K. McClure, the Philadelphia journalist, 81.

June 8.—William Henry Baldwin, a well-known philanthropist of Boston, 83.

June 9.—Lazarus Silverman, a pioneer banker and financier of Chicago, 79.



CHARLES G. BUSH, THE CARTOONIST.

(For many years Mr. Bush's cartoons, appearing in the New York *Herald* and later in the *World*, were reproduced in the pages of this magazine. Mr. Bush represented the highest type of cartoon work that has yet found expression in America. He died on May 21, at the age of sixty-seven.)

June 10.—Rev. Edward Everett Hale, D.D., 87 (see page 79)....Ex-Governor Robert J. Reynolds, of Delaware, 65.

June 12.—Stephen Therry, founder of the Holy Name Society, 77

June 14.—Dr. Affonso A. Moreira Penna, President of Brazil, 62....Dr. B. L. Wiggins, vice-chancellor of the University of the South, 48....Gen. John S. Kountz, past commander-in-chief of the Grand Army of the Republic, known as "the drummer boy of Missionary Ridge," 63.

June 15.—Joseph Nimmo, Jr., the well-known statistician and economist, 79....Captain Samuel W. B. Diehl, formerly Judge Advocate-General of the United States Navy, 58....Louis Prang, known as the father of lithographing, 85....Lieut. Lucien Napoleon Bonaparte Wyse, French explorer and engineer, one of the pioneers of the Panama Canal idea, 64.

June 16.—Dana Estes, the Boston publisher, 69....Col. William F. Fox, Superintendent of Forests in New York State, 69....Joseph R. Thibaudau, sheriff of Montreal and Dominion Senator, 64.

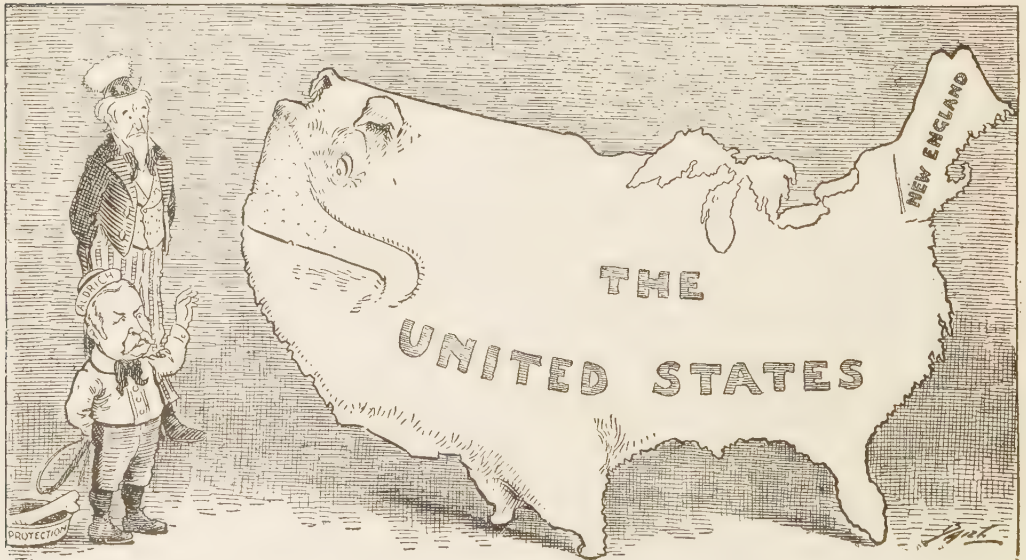
June 20.—Frederick de Martens, the Russian expert on international law, 64.

SOME OF THE RECENT CARTOONS.



"NEARLY OUT OF THE WOODS."

Uncle Samuel expects shortly to emerge from the woods of tariff revision.
From the *Herald* (New York).



HOW LONG WILL THE TAIL CONTINUE TO WAG THE DOG?

New England, through the power of Senator Aldrich, is said to dictate the legislation for the entire country.

From the *Journal* (Minneapolis).



OUR NATIONAL QUARTET.

In the above cartoon, Uncle Joe Cannon, John D. Rockefeller, Senator Aldrich and Vice-President Sherman are represented as being harmoniously in favor of a high tariff.

From the *Sun* (Baltimore).



ON THE NATIONAL GOLF FIELD.

THE POOR CONSUMER: "President Taft will have to use his niblick to get me out of this hole."

From the *Daily Tribune* (Chicago).



ONE CARTOONIST'S CONCEPTION OF THE EFFORTS OF CONGRESS TO REVISE THE TARIFF.

From the *Herald* (Boston).



POOR PROTECTION!

This distressed gentleman represents the consumer. He is not frightened at the animal in the next column; he is simply worried because his "Aldrich tariff umbrella" affords him no protection.

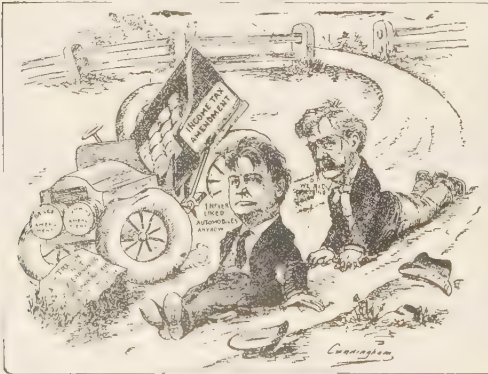
From the *American* (New York).



WELCOME!

(The change of sentiment in the South in favor of the Republican tariff principle of protection is illustrated by Mr. Davenport's cartoon showing the Southern Senators climbing aboard the G. O. P. elephant.)

From the *Evening Mail* (New York).



THE BREAKDOWN OF THE INCOME-TAX AUTOMOBILE.

(Referring to the failure of the proposition for an income tax favored by Senators Cummins and Bailey.)

From the *Herald* (Washington).



NOT AT ALL WORRIED.

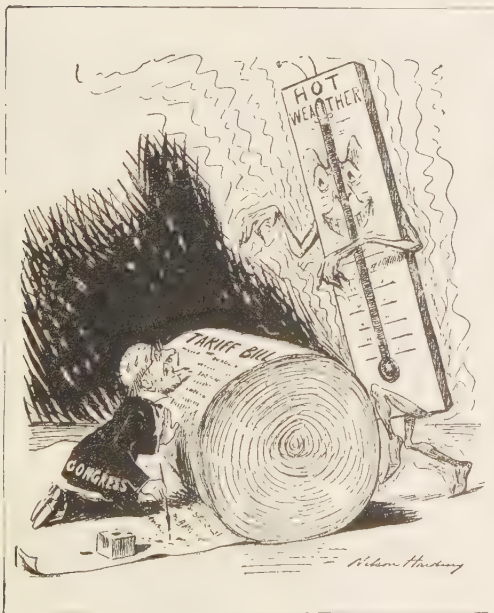
The "corporation" and the "Big Income" relying on the Senate for protection!

From the *Tribune* (South Bend, Ind.)



TOO MUCH NOISE ON THE BANK!

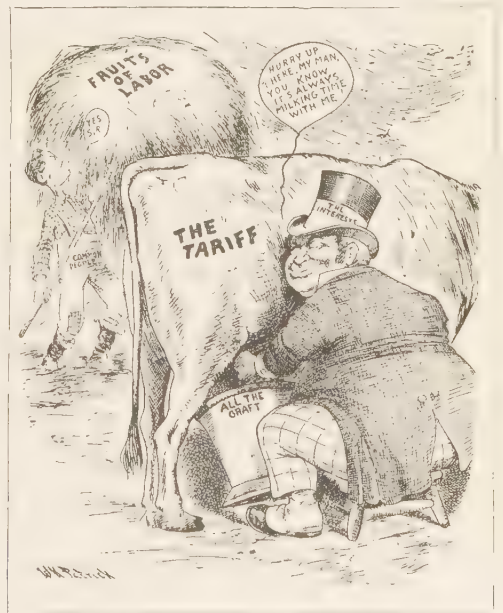
The tariff discussion on the bank is scaring off the fish that "Business" is anxious to catch.
From the *State Journal* (Columbus).



"THE GOBBL'UN'LL GIT YOU EF YOU DON'T WATCH OUT!"

Congress will have to hurry and finish the tariff before the hot weather comes.

From the *Eagle* (Brooklyn, N. Y.).



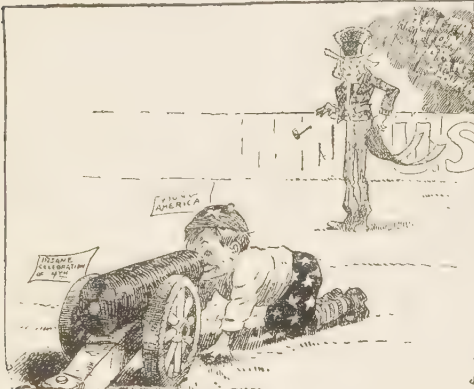
WHO DO YOU THINK HATES TO LOSE THE JOB OF MILKING THIS COW?

The "Interests" wish to retain a high protective tariff.

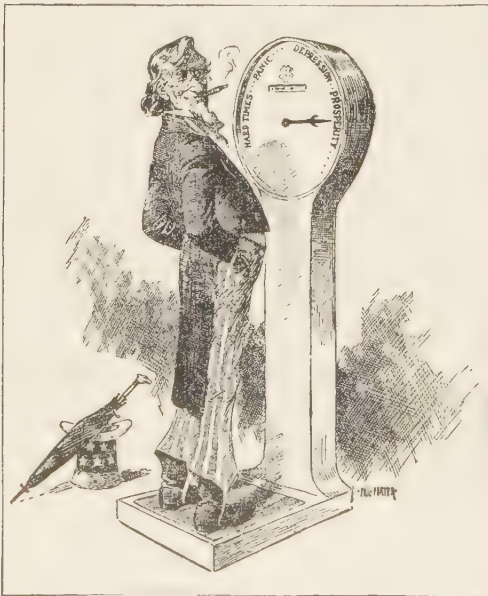
From the *Daily Oklahoman* (Oklahoma City).



CORN AND WHEAT ARE KINGS INDEED WHEN THEY SHOOT UP TO THE HIGH PRICES OF JUNE.
From the *Post-Intelligencer* (Seattle).



WILL THE SPOILED CHILD STILL BE HUMORED?
From the *State Journal* (Columbus).



"GAINING."
The hand of the dial begins to point to prosperity for Uncle Sam.
From the *Traveler* (Boston).



AN ENCOURAGING OUTLOOK.
"There is nothing in sight but reasonable, rational prosperity."—(Hon. Franklin MacVeagh, Secretary of the Treasury.)
From the *Globe* (Utica).



THE SOWER.
(The sturdy spirit of old New England is reanimated with new industrial enterprises.)
From the *Herald* (Boston).



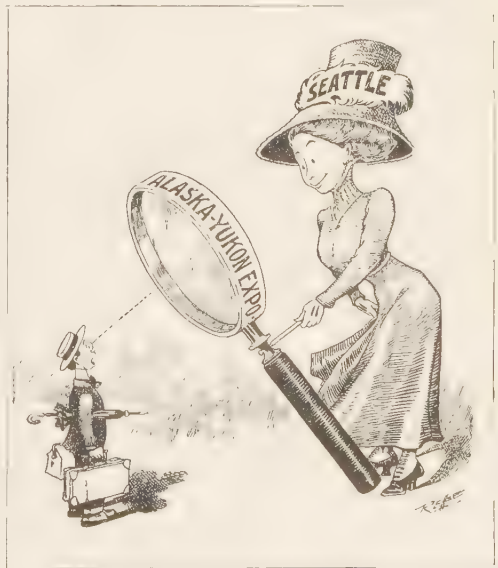
"GEE, I'D RATHER BE WRIGHT THAN BE PRESIDENT."

Ambitious young America utters a punning sentiment apropos of recent events.
From the *Leader* (Cleveland).



THE CHERUBS!

A commission investigated the methods of the New York Stock Exchange, with the above result.
From the *World* (New York).



SEATTLE: "Have a look!"

Miss Seattle invites the country to see her exposition, and,—incidentally,—herself.
From the *Pioneer Press* (St. Paul).

THE NATION'S PLAYGROUNDS.

BY GEORGE OTIS SMITH.

(Director, United States Geological Survey.)

THE nation that leads the world in feverish business activity requires playgrounds as well as workshops. If we aspire to maintain industrial supremacy we must perforce think of conserving not only minerals but men. Arguments for scenic preservation need not be limited to æsthetic or sentimental postulates; the playgrounds of the nation are essential to its very life. Nor can the materialist turn aside from this demand of the times, for no greater value can be won from mountain slopes and rushing rivers than through the utilization of natural scenery in the development of citizens.

John Muir has justly termed the mountain parks fountains of life. Here can be had the recreation that makes for increased and maintained efficiency. The appreciation of the beautiful in Nature should become more and more an American characteristic, and in these days of national stocktaking we do well to inventory the nation's wealth in wild scenery.

The national policy of preserving the best of America for present and future enjoyment is well fixed. Since 1872 twelve national parks have been established, including

public domain within as many different States, with an aggregate area of 3,500,000 acres. In addition to these reservations there have been created since June, 1906, eighteen national monuments in nine States, with a total area of over 1,500,000 acres.



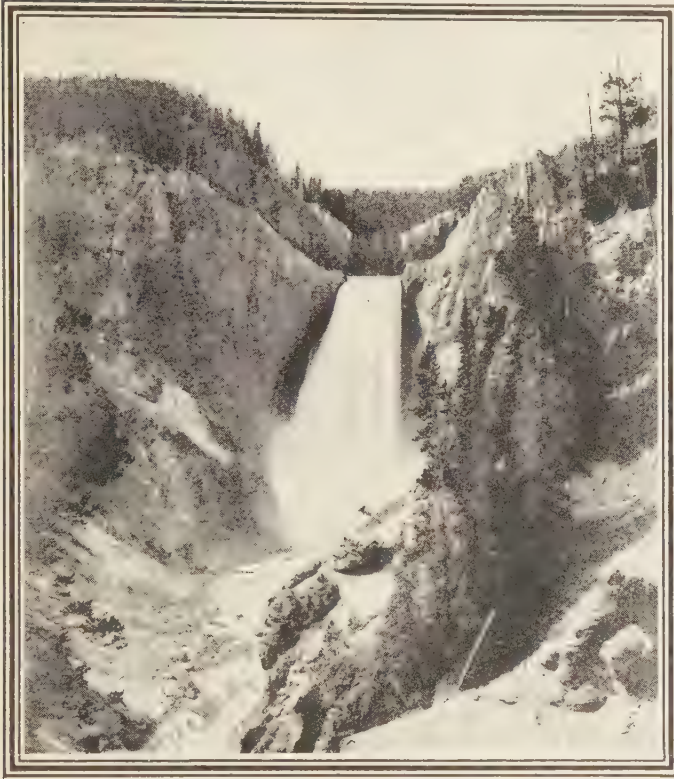
GIBRALTAR.

(A striking landmark on the route of ascent of Mt. Rainier.)



MAP SHOWING LOCATION OF THE NATIONAL PARKS OF THE NORTHWEST.

The Grand Canyon and the Petrified Forest in Arizona, and the Natural Bridges in Utah are the most notable of the national monuments; of the national parks the Yellowstone, the Yosemite, and the Mount Rainier are the best known. The Secretary of the Interior is the federal officer charged with the administration of these national reservations, and Congress makes annual appropriations for their maintenance, those for the current year amounting to \$175,000. The present policy is to make the utilization of these resources for recreation available to the greatest number of people by building



THE GREAT FALL, YELLOWSTONE NATIONAL PARK.

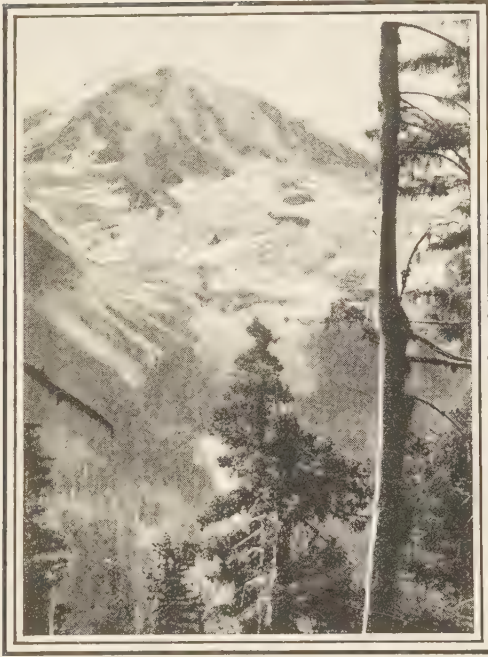
roads and trails, issuing maps, and safeguarding the health and comfort of visitors through sanitary improvements and supervision of the transportation and hotel concessions.

The Northwest is rich in the possession of a large share of these playgrounds of the nation, so that the visitors to the exposition at Seattle this year have an abundance from which to choose. Many will tarry within the Yellowstone Park; others may prefer to retire to a quiet camp on the slopes of Mount Rainier, and then may return southward through Oregon and California, turning aside to visit Crater Lake or the Yosemite Valley and later taking another side trip to the Grand Canyon in Arizona. If a northern route is thought preferable, our sister country, Canada,



MINERVA TERRACE, MAMMOTH HOT SPRINGS, YELLOWSTONE PARK.

(Visited annually by thousands of tourists.)



NORTH SLOPE OF MOUNT RAINIER.

(Where the ice avalanches thunder day and night.
Never climbed and rarely seen by the tourist.)

has no less inviting retreats, and the traveler whose ticket reads via the Canadian Pacific

should stop off in midsummer at Banff or Glacier, where the grandeur of ice-clad mountains both refreshes and inspires.

The Yellowstone National Park was never better appreciated than at the present time. Last year nearly twenty thousand visitors experienced the pleasures of travel through this park, and nearly one-half of the number made the trip in camping parties. Two park entrances are now accessible by rail,—that at the northern gateway of the park by the branch line of the Northern Pacific Railway from Livingston to Gardner, and that on the western boundary by a branch of the Oregon Short Line.

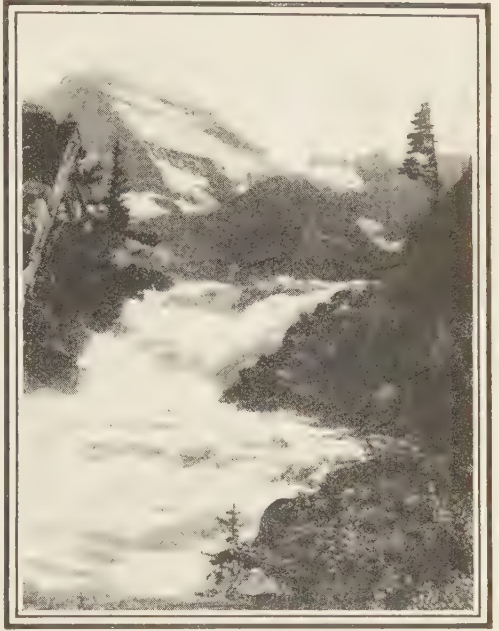
The Yellowstone Park not only serves the interests of the adjacent States through its forests, which afford natural storage reservoirs at the headwaters of the important rivers, but this protected region offers adequate refuge for game animals. Those who know the native fauna of America only as exhibited in the city "Zoos" may find here the opportunity to observe big game in its natural environment, in a playground that these original owners appear willing to share with man. Two herds of bison remain in the park. The wild herd is reported as gradually increasing in numbers, and the fenced herd increased from twenty-eight in 1904 to seventy-four in 1908. Black and



A TRANSPORTATION LINE IN THE PROPOSED GLACIER NATIONAL PARK.
(The United States Geological Survey pack train near Swiftcurrent Pass.)

grizzly bears abound and seem perfectly adjusted to their habitat, even to the extent of robbing camp commissaries, and one confirmed offender last season suffered a military execution. Both white-tailed and black-tailed deer are increasing in the park, as well as moose, and official reports estimate the bands of elk to aggregate from 25,000 to even 50,000 head. Yet it is not this wealth of protected game that makes the Yellowstone most attractive. This park is truly the wonderland of water, which here displays all its varied charms,—cascading mountain streams and quiet lakes in sylvan setting, rushing rivers and thundering waterfalls, steaming hot springs and overtowering geysers,—a gamut nowhere else exhibited to the appreciative observer.

The proposal to establish another national park in northern Montana was favorably reported to the Senate last year, but no further action was taken. This proposed Glacier National Park would embrace an area of 1400 square miles on the crest of the Rocky Mountains north of the Great Northern Railway and immediately south of the international boundary. The region is the home of the mountain goat and the big-



MOUNT GOULD AND SWIFTCURRENT CREEK.

(One of the many bits of nature in Glacier National Park, Montana, reserved for the traveler who leaves the beaten way.)



LAKE KEECHELUS,—A TYPICAL MOUNTAIN-LAKE SCENE IN THE NORTHERN CASCADES.

(Along the new line of the Chicago, Milwaukee & Puget Sound Railway.)



PUGET SOUND FOREST.—SEMI-TROPICAL VEGETATION.

horn sheep,—a wilderness of rugged mountain peaks, deep canyons, and grand amphitheaters where great glaciers remain to show the tools with which the original mountain masses were carved into masterpieces.

The Mount Rainier National Park is unique in preserving the wildest of mountain scenery almost at the gates of the Sound cities, Seattle and Tacoma. Less than half a day's travel by rail and stage from Tacoma brings the visitor to the hotel at Longmire Springs, well within the park, and the perfectly graded Government road, constructed by Colonel Chittenden, enables the automobilist to reach the lower end of the Nisqually Glacier. Just beyond is Paradise Valley, where a tent hotel affords accommodations amid beautiful surroundings at the starting point for the ascent of the mountain.

Mount Rainier is the noblest of the peaks that overlook our Pacific Coast. Like Fujiyama in Japan and Shishaldin in Alaska, it

risers majestically with graceful lines that proclaim its volcanic origin. With its base set in the green of the wonderful Puget Sound forest, Rainier's snow and ice covered cone merges with the clouds until the white summit appears to belong to heaven rather than to earth. From this snowy cone radiates a score of glaciers, the largest in the United States, which extend down the gashed slopes until they are lost in the forest below where they give rise to rushing, noisy rivers of milk-white water. Over twenty-five years ago James Bryce, now British Ambassador to this country, and Professor Zittel, the well-known German geologist, visited Mount Rainier, and in a report expressed the hope that this peak might be reserved by the federal Government as a national park. It is gratifying to Americans to know that these world travelers were willing to testify that they had seen nothing "more beautiful in

Switzerland or Tyrol, in Norway or in the Pyrenees than the Carbon River glaciers and the great Puyallup glaciers."

In Paradise Valley or in some other sylvan retreat on the lower slopes of Mount Rainier whoever is weary of urban life and strife may find true recreation. All about are the spring flowers, which through the summer follow the retreating snow banks, forming gardens where Nature exhibits an abandon of luxuriance within sight of ice and snow. Below are the stately forests, quiet almost as death, except near the brink of a torrential stream, and above is the peak that overtops and overmasters all. There the volcanic cone records the constructive work of earth forces through past ages, followed by the destructive work of glaciers, which have cut deep gashes into the mountain sides, and of the avalanches that thunder by day and by night, testifying that the atmospheric agencies have not even yet ceased their attacks.



ALASKA AS THE TOURIST SEES IT — GLACIER BAY.

THE ALASKA OF TO-DAY.

BY ALFRED H. BROOKS.

(In charge of division of Alaskan Mineral Resources, United States Geological Survey.)

WHAT does Alaska stand for? On this point there is a wide divergence of opinion. To the tourist it means magnificent fiords, heavily forested islands, high snow-clad mountains, glaciers, and picturesque Indian villages. To the whaler, Arctic flocks bordering a flat treeless coast, with here and there an Eskimo sod house. To the merchant, a field for exploitation, the source of salmon, cod, and halibut. To the hunter, the best game tract on the continent, with its huge bear, moose, countless herds of caribou, and white big horn. To the pioneer farmer, a region of some agricultural promise. To the prospector, long, weary journeys, lonesome camps, disappointments, incessant toil, and substantial rewards, if he be the lucky one. To the capitalist and engineer, an empire to be opened up by railroads, highways, cities, and the development of gold, copper, and coal mines. While to the average man, it must be confessed, Alaska is but a small spot on the map somewhere near the pole, where the snow lies deep and men grow sud-

denly fabulously wealthy,—the source of seal-skins and an endless stream of gold.

Of these varied impressions each is in part correct, but a composite of all would best represent the Alaska of to-day. Yet it is no easy task to blend such discordant elements. Even Alaskans, accustomed by long residence to think of their country in terms of its great magnitude, seldom do it justice. The Alaskan fisherman has as little in common with the inland prospector as has his prototype of Gloucester with the Colorado miner. The life of the whaler, again, is outside the experience of either prospector or fisherman. The lode miner of Juneau is apt to despise the placer miner of Fairbanks as little more than a roving adventurer. The pioneer prospector who has won his gold from the auriferous gravels unaided by capital or machinery views the advent of the trained engineer with suspicion. Those who have spent their lives among the somber rocky fiords and heavily forested islands of southeastern Alaska evince great skepticism re-

garding the possibility of any agricultural development. On the other hand, the resident of inland Alaska, familiar with broad fertile valleys, luxuriant grass, and long, bright days, realizes that some farming is possible. The small fur trader in isolated posts has still another point of view, for he lives under almost as primitive conditions as did the voyageur of the Great Lakes two centuries ago. At Nome and Fairbanks,—the thriving centers of rich mining districts, possessed of telegraphs, telephones, railways, electric lights,—all the essentials and most of the luxuries of modern life are to be found.

It is, therefore, not easy to answer the question: What is Alaska? For it is nothing less than continental in its dimensions and in the variety of its resources. Alaska, with its contiguous islands, measures east and west and north and south almost the same as the continent of Australia. Moreover, its geographic position and the distribution of its mountain ranges give it as great diversity of climate and vegetation as any equal area on the globe. The heavy rainfall, cool summers, and mild winters of the Pacific seaboard are in strong contrast with the semi-arid conditions, with short, hot summers and long, cold winters of the region lying beyond the coastal barrier. In contrast to both of these, again, are the barren grounds of northern Alaska, where strictly polar conditions prevail.

SOURCES OF THE COUNTRY'S INCOME.

When in 1867 the purchase of Alaska was under discussion it was opposed in Congress on the ground that the country "will be a source of weakness instead of power and constant annual expense for which there will be no adequate return." The present Seattle Exposition is the best refutation of that statement. There are exhibited the resources, in mining, fisheries, and furs, of this great land, whose development has hardly well begun. In fact, the city of Seattle itself perhaps demonstrates most strikingly the value of this "source of weakness," for it is chiefly Alaskan commerce which has raised this town from a small lumbering center to the great metropolis of the Northwest. Who, however, forty years ago could foresee the future wealth of Alaska, then for the most part a wilderness, known only through the journeys of the fur-traders along its margins? Even twenty years after the purchase the total annual output of Alaska's indus-

tries was worth less than four million dollars, nearly half of which represented seal-skins. Who could know that the \$7,200,000 paid for this "Arctic province," as it was then called, would be returned with interest to the Federal Government by the tax on the seal rookeries alone? As late as 1887 the entire gold output was less than \$700,000,—largely the production of the Treadwell Mine.

Trade developed slowly, but in 1903 Alaskans were purchasing \$9,900,000 worth of goods in the States and sending back gold, fish, furs, etc., to the value of \$17,900,000. By 1907 the value of goods shipped to Alaska had reached \$19,500,000, while \$33,500,000 worth of products was returned. The source of this wealth is indicated in the accompany-



DIAGRAM SHOWING VALUE OF ALASKA PRODUCTS IN 1907. TOTAL, \$33,500,000.

ing diagram. The annual gold output (\$19,350,000 in 1907) far exceeds in value that of all the other industries. This, however, is but a temporary condition, not because the gold production will fail to increase, but because the construction of railways will give copper and coal mining a fair chance.

The Territory, for the purchase of which in 1867 Seward was so bitterly criticised, has since produced gold, silver, copper, tin, marble, gypsum, coal, furs, salmon, cod, halibut, herring, timber, etc., to the value of \$324,500,000. The proportion contributed by each of these various products is shown in the following diagram. Though Alaska is known as the land of gold, the fishery products have a value of nearly five-



LODE MINING IN SILVER BOW BASIN, NEAR JUNEAU.

sevenths that of the gold output. Valuable as the product of the seal rookeries in the Pribilof Islands has been in the past, this

the entire catch was less than 15,000 skins in 1907, as compared with over 100,000 in 1887. The present generation will undoubtedly witness the extermination of this valuable animal. The other fur-bearing animals are also decreasing, as is inevitable with the progress of civilization. In 1907 the furs, exclusive of seal skins, were valued at less than half a million dollars.



DIAGRAM SHOWING VALUE OF ALASKA PRODUCTS, 1867-1907. TOTAL, \$324,500,000.

source of wealth is fast disappearing. Thanks to the raids of the pelagic sealers,

ALASKA'S MINING INTERESTS.

Probably the earliest mining in Alaska was the recovery of copper nuggets by the aborigines from stream gravels of the Chitina and White River valleys. Utensils and weapons manufactured from this copper were in wide circulation among the natives at the time of Bering's discovery of Alaska in 1741. The first corporation to engage in Alaska mining was organized in 1854 to meet a great demand for ice in California, and incidentally, also, to mine coal on Cook Inlet. Gold placers were found in southeastern Alaska in 1867, but there was no gold mining of importance until the discovery of the Juneau gold fields in 1880. The modern epoch of mining began with the finding of the Klondike gold on Canadian territory in

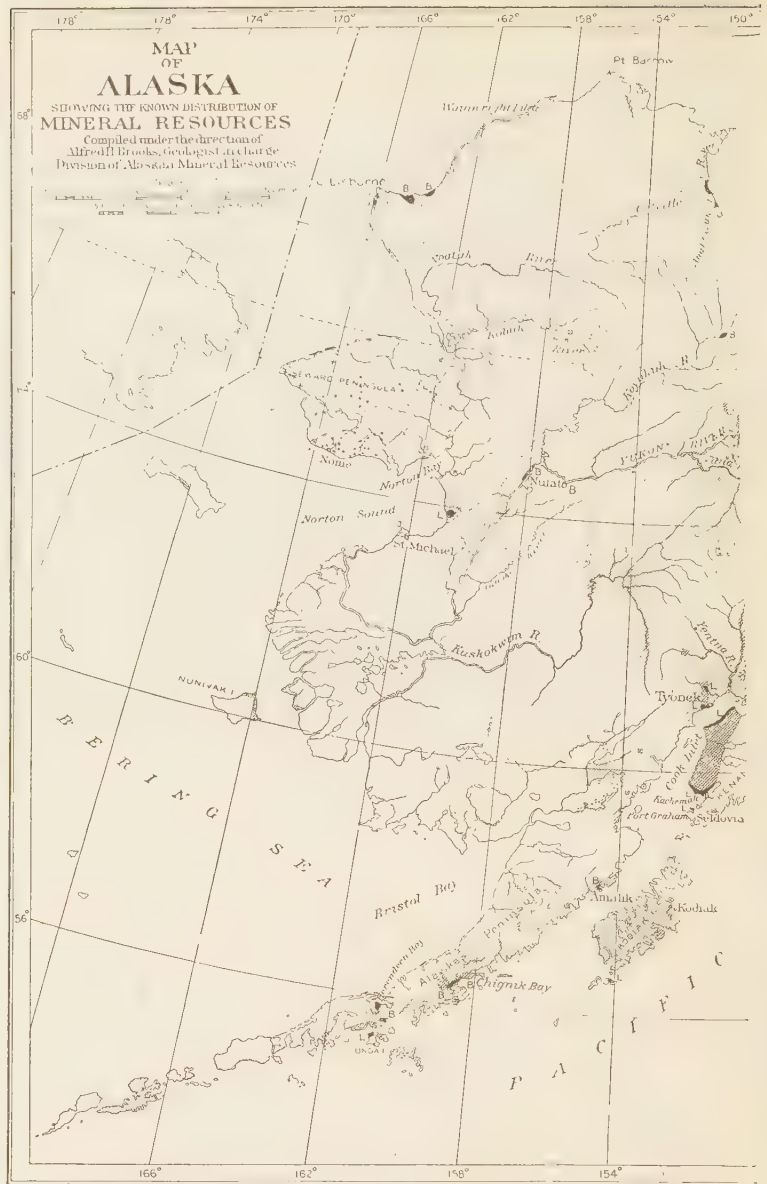
1896. With the discovery of the Nome (1899) and Fairbanks (1902) placers, Alaskan gold-bearing gravels became of assured importance.

Alaska's mineral wealth is widely distributed, especially the gold. This occurs both in placers (gravel deposits) and lodes (quartz veins). The latter are most notable in southeastern Alaska in the Juneau districts. As the steamer approaches Juneau the ceaseless roar of nine hundred stamps can be heard proclaiming the location of the famous Treadwell group of gold mines, one of the largest enterprises of the kind in the world. Even at this distance can be seen the great scar on the side of the mountain, which marks the place of the great open pit, or "glory hole," whence millions of dollars in gold have been taken. Now the mine workings reach a depth of 1000 feet below the level of the sea,—far below the bottom of the glory hole.

It is not merely size which has made the Treadwell famous. This enterprise has demonstrated the cheapness of mining on the Pacific seaboard of Alaska. The present average cost of mining and milling a ton of ore at this property is but \$1.30. In fact, the conditions of this coastal region,—the strong relief, giving ready access to ore bodies, extensive water powers, good timber,

and ocean freights,—reduce the cost of mining to a minimum hardly possible in any Western State. Alaska is so often regarded as a land of high costs that this triumph must be laid to her credit.

Placer gold, or that found in gravels, is more widely distributed in Alaska than in any other part of the continent. The present centers of production are Fairbanks (\$9,200,000 in 1908) and Nome (\$5,100,000, 1908). There are, besides, many smaller placer



MAP OF ALASKA SHOWING DISTRIBUTION OF



MINERAL RESOURCES AND AGRICULTURAL LANDS.

camps which raised the total production from auriferous gravels to \$15,450,000 in 1908. The production from lodes during the same year was \$3,600,000. One hundred million out of the total of one hundred and forty-two million of Alaska gold production has been taken from placers; the rest from lode deposits. It is not likely that this ratio between placer and lode production will continue, for, while the former will grow, it is probable that the latter will increase faster.

Recent discoveries at Fairbanks, at Nome, and in the Susitna Valley suggest that these districts will in time become producers of lode gold also.

A more immediate change in the placer camps is promised by the revolution of mining methods. Until quite recently placers were, as a rule, exploited solely by manual labor,—a system which, while it encourages the individual miner without capital, permits development of only very rich deposits. Probably most of the gravel gold mining of inland Alaska has been limited to material which carried gold to the value of five dollars or more to the cubic yard. In many localities, where this expensive mining is now going on, proper machinery would undoubtedly work with profit gravels which carry only from 25 to 50 cents' worth of gold to the cubic yard. This indi-

cates enormous expansion in the future, after the cream has been removed by the pioneer. The recent successful introduction of gold dredges, both at Nome and in the Yukon Valley, demonstrates what can be accomplished by improved machinery.

Millions of dollars in gold have been won from Alaskan streams by the crude equipment of the pioneer, and this form of mining will prevail in many of the more isolated districts for years to come. As fast, how-

ever, as these districts become accessible through steamers and railways, these methods will be revolutionized; then, and not until then, will the placers reach their full development. These changes will rob the northland of some of its romance, but will give it greater commercial stability and assure to the placer districts longer life.

To the southern seaboard belong the copper mines of Prince of Wales Island, near Ketchikan, and of Prince William Sound, which have since 1900 produced about 26,000,000 pounds of copper.

Two inland copper-bearing areas are also being opened up. The one lies in the Chitina Valley, about 150 miles from the coast, and is the objective point of a railway now under construction. The second, about which less is known, lies about 100 miles beyond in the head water region of the Copper and White rivers. Both these districts also contain some gold deposits.

COAL-FIELDS RICHER THAN GOLD DEPOSITS.

While Alaska's gold reserves are large, they are in no way unique, for refined gold is the same, whatever the source. In the

matter of coal resources, Alaska has no competitor. Its store of high-grade fuel cannot be equalled in quality west of the Rockies. In fact, to find anthracite and bituminous coal which compares in fuel value with that of Alaska, one must come east to Pennsylvania. These coals are, therefore, the key to the commercial situation on the west coast. For a high-grade steaming coal used for manufacturing industries or a merchant marine, or a coke for smelters in the Western States one must turn to Alaska. Hence, the growing population of the West has a vital interest in the development of these coal-fields. These coals are of even national importance, for of all our Pacific possessions Alaska alone can supply our battleships with smokeless fuel.

The quantity of this anthracite and bituminous coal is not as yet determined, but it certainly is not unlimited, and hence should not be wasted. To use it, however, will not be to waste it, unless it be improperly mined. A surveyed area of about 100 square miles is known to be underlain by these coals, and it is probable that further investigation may show an extension of the field. A rough



PLACER MINING BY HAND METHODS NEAR NOME.



JUNEAU, THE CAPITAL OF ALASKA, TREADWELL MINE IN THE DISTANCE.

estimate of quantity within this surveyed area gave some six billion tons, or more than one and a half times the entire production of Pennsylvania since coal mining began. It is fair to assume that this coal is worth a dollar a ton, which would make its total value about forty times as great as the entire gold output of Alaska to the present time. It is probable, therefore, that the value of the coal-fields exceeds that of the gold reserves. These coals are, however, practically untouched, for the only coal mining in Alaska is that of some lignites for local use. A few years ago statistics showed that Alaska's entire export of coal for a year was four tons, while it produced fifteen tons of gold.

These valuable coals occur in two districts,—the one, called the Bering River field, lies about thirty miles east of Copper River and twenty miles from the coast, at Controller Bay; the other, the Matanuska field, is fifty miles northeast of Cook Inlet. There are also some bituminous coals, though of less fuel value, in the Alaska Peninsula, on the Yukon, and on the Arctic slope. Lignitic coals and peat are abundant and widely distributed, and some of these possess great value for local consumption.

OTHER MINERAL RESOURCES.

Among the lesser mineral products of the Territory are silver, occurring chiefly with

the gold; tin, mined in a small way near Cape Prince of Wales, and petroleum, of which there has been a small production at Controller Bay. Lead, antimony, and quicksilver ores have also been found, as have also mica and graphite, but none of these have been mined. Southeastern Alaska furnishes a high grade of marble, which has been quarried at three localities, and in the same region a valuable gypsum bed has been opened up. Iron ores are known to occur in southeastern Alaska, and, considering the proximity of coking coal, may some day prove of commercial importance. Should Alaska ever ship pig iron to the west coast States, it will be but repeating history, for in the middle of the last century the Russians at Sitka manufactured church bells, plowshares, and other implements and sent them to California.

FISHERIES,—ANOTHER SOURCE OF WEALTH.

Whaling was the first of the Alaskan fisheries to attract notice. As early as 1848 American whalers passed through Bering Straits, seeking a new hunting ground. This industry was very profitable for many years, though seriously hampered for a time by the attitude of the Russian authorities and almost entirely interrupted by the ravages of the Confederate privateer *Shenandoah* during the Civil War. Since then the value of the annual catch has gradually dimin-

ished, that for 1907 being reported as only \$117,000. In recent years another industry has sprung up in southeastern Alaska, where several varieties of small whale are caught in the inland waters and converted into fertilizer.

THE SALMON OUTPUT.

The salting of Alaska salmon began in 1868, canning ten years later, since which time the value of the annual product has grown to over ten million dollars, while the total value up to 1908 is nearly one hundred million dollars. As, however, the best fisheries are already occupied, and as even with the many hatcheries it will be difficult to prevent the depleting of the salmon fisheries, this industry is not likely to grow.

About ten thousand people are now employed in the salmon fisheries during the summer months. In 1907 there were 29 canneries and 35 salting plants, with a total product of about 2,200,000 cases of canned and 25,000 barrels of pickled salmon. These establishments are distributed along the Pacific seaboard and as far north as Bristol Bay, a southern arm of Bering Sea. At Loring, Petersburg, or other places in southeastern Alaska the tourist may have a chance to marvel at the complete equipment of some of the large canneries. He may also obtain glimpses of the native and white fishermen hauling their seines. As high as forty thousand fish have been reported from one haul of a seine. This fishing is usually done near the mouth of clear water streams, toward which the schools of salmon are headed for the purpose of spawning. There is much waste in the salmon industry, for the offal is dumped into the sea, though it might be utilized for manufacture of fertilizers.

HALIBUT, COD, AND HERRING.

About 2000 people are employed in the halibut, cod, and herring fisheries, which, with the increased local demand and the improvement of shipping facilities to more distant markets, promise to be of very great importance. A large packing plant has recently been established at Ketchikan. This is only a few hours' sail from Prince Rupert, the Pacific terminal of the new Canadian trans-continental railway. The distance to Boston by this route thus becomes four to five days, which will bring Alaska fresh fish to the Eastern markets. Among the freshwater fish which form a welcome variation to Alaskan diet are the brook trout (south-

eastern Alaska), dolly varden trout, pickerel, small white fish, and the very widely distributed Alaska grayling.

REINDEER PASTURES.

The popular idea that Alaska is for the most part a barren waste has no basis in fact. It is probable that only a small part of its 586,400 square miles cannot eventually be made useful to man.

The accompanying diagram gives a rough land classification of the known parts of Alaska, embracing about two-thirds of its entire area. It will be noted that only

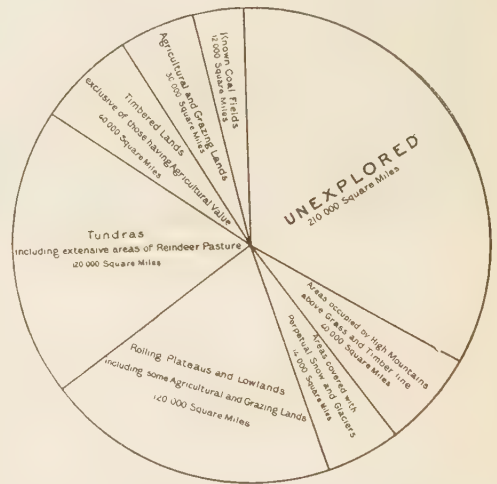


DIAGRAM SHOWING THE PHYSICAL CONFORMATION OF ALASKA, AS KNOWN TO-DAY.

14,000 square miles is covered with perpetual ice and snow, and this lies for the most part along the Pacific seaboard. Thirty thousand square miles is embraced in mountainous areas which stand above timber and grass, but this is not all waste land, for it includes some of the richest mining districts. Even the great tundras which, for 120,000 square miles, sweep along the Bering and Arctic coasts, with their monotonous plains and rolling uplands, barren of all timber, are not without value. Most of these tundras, or barren grounds, as they are termed in Canada, afford extensive reindeer pastures, and some include valuable gold deposits. While they are without timber, much of the tundra is underlain by peat, which may be locally utilized for fuel, as is so extensively done in Europe. In the Scandinavian peninsula reindeer meat forms an important element in the food of the people. There is no reason,



LUMBERING IN KENAI PENINSULA, ALASKA.

therefore, why these wastes should not furnish an important source of meat for local use, if not for export, not to mention the pelts. As Alaska is settled and transportation facilities are improved, reindeer breeding may become an important industry.

The Bureau of Education has done much to educate the natives to this end. It is the natural step in the evolution of man for a people to pass from a hunting to the pastoral condition. By teaching them to herd reindeer we can make amends to these simple and harmless people for the loss of their hunting and fishing grounds. Already the herds of reindeer owned by the Government, natives, and missions number nearly twenty thousand, but this is but a small fraction of what the tundra lands could support without infringing on any other industry.

FOREST PRODUCTS.

There is also a large area (120,000 square miles) of rolling uplands and flat lowlands which include some scattered grass and sparsely forested lands. To be conservative, however, none of this land is here regarded as valuable for agriculture, grazing, or timber. The plateaus here included, which stand above timber line, are in part covered with the white reindeer moss, and these may have value for pastures. As some

mining camps are included in this subdivision also, it is not without resources.

Alaska has no considerable reserve of timber, though the southeastern panhandle is heavily forested, chiefly with hemlock and spruce, though also including some red and yellow cedar. Here in the flats and lower slopes of the mountains trees with a diameter of five or six feet are not uncommon. To the westward the forests are not so heavy nor the trees so large, but there is good stand of timber along the coast near the Copper River, on the Kenai Peninsula, and along the shores of Cook Inlet. Southwestern Alaska and the shores of Bering Sea and the Arctic Ocean are without trees, save for willows along the water-courses.

Spruce, white birch, and several varieties of cotton-wood occur along the water-courses in the interior. Here the largest trees are not over a foot and a half to two and a half feet in diameter. The lower slopes of the uplands are also forested, but the aggregate supply of merchantable timber is small.

Along the Pacific Coast supplies of timber have been adequate for the local demand, and under a wise policy of national forestry can continue to be so and also furnish some forestry products, such as pulp, cedar, etc., for export. In the inland region, though there has been little waste in actual consump-

tion, forest fires have swept off hundreds of square miles of timber during the past decade. Unless such destruction is prevented, there is liable to be a shortage of timber in some parts of the region. These inland forests have no value for export, but have served the needs of the mining communities, and can continue to do so if the ravages of the fires are ended.

AGRICULTURAL POSSIBILITIES.

All newcomers to Alaska exclaim at the luxuriant vegetation, the abundance and variety of flowering plants, and the thriftiness of the gardens. There seems to be a general impression that when Puget Sound is left behind the barren grounds are close at hand. Yet Alaska is to-day supplying probably 20 per cent. of its own vegetables, besides considerable hay and forage plants.

Even those fairly familiar with Alaska can often see no possibilities of agriculture. They naturally compare it with such rich lands and favorable climates as those of California or Illinois, forgetting the sturdy race of farmers bred on the stony hill slopes of New England, or the agriculture of northern Europe. They forget, too, that our rich lands are being rapidly taken up, and that almost no extensive areas remain unoccupied in the

States, except as they be developed by irrigation or new methods of dry-land farming. Year by year the northern limit of grain ripening is pushed farther toward the pole, so that lands which would have been considered valueless for farming a generation ago now support a thriving agricultural population.

That the hardier grains, vegetables, and fruits can be ripened in much of Alaska lying south of the Yukon there is now no doubt. Equally well known is the fact that the Territory contains very extensive areas of magnificent grass lands. Horses have frequently wintered without any attention in the sheltered valleys of the inland regions. These animals pawed away the comparatively light fall of snow and subsisted on the self-cured grass underneath. It is not to be implied that this method of wintering stock is recommended, but serves to show that stock raising is not impossible. Such an industry would probably require the cutting and curing of the hay and the housing of animals during the coldest months.

The present agricultural population is very small, only some four hundred odd homesteads having been taken up. But until very recently there has been nothing to encourage the homesteader. Transportation

and labor is very expensive and the market uncertain. Under these conditions the opportunity to hew himself out a home in the wilderness has not appealed to the farmer, especially if he had a chance to settle on the irrigated lands in our Western States. Yet the pioneer stock which followed the Oregon trail half a century ago still persists, and here and there the traveler will find a flourishing homestead, with its group of sturdy children. The opening of the coal and copper fields and the construction of railways will attract a more permanent population than have the placers. This will mean a market for the farmer, and this is all that is needed.



A PIONEER FARMER AND FAMILY IN THE YUKON VALLEY.

These young Alaskans have never been out of the territory.



CUTTING WILD GRASS NEAR SEWARD, KENAI PENINSULA.

There are fully 30,000 square miles of Alaska suited for grazing or agriculture,—an area equal to three-quarters of the State of Ohio. Make this accessible and develop local markets, and the farmer will come,—if not from the States, then from northern Europe, a region which has already furnished many good citizens to Alaska. Finland supports three million people and exports agricultural products. Yet the Finnish colonist will find in Alaska a better climate and soil than in his native land. Be it remembered, however, that Alaska is far from an ideal farming region. The growing season is short, and the winters long and severe. It will probably never furnish agricultural products except for local consumption, but that such a market will prove a lucrative one is shown by the success of the many small farms and gardens already under cultivation.

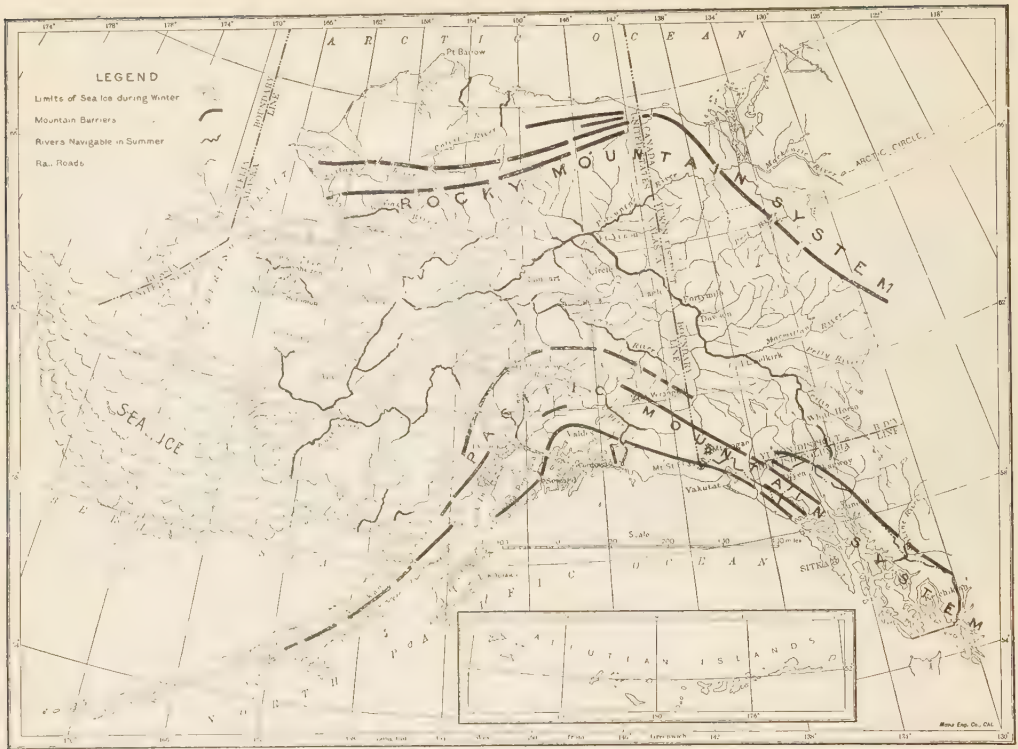
THE TRANSPORTATION PROBLEM.

Industrial advancement in Alaska, perhaps more than in most fields of equal size, is controlled by geographic conditions. A series of high ranges parallels the Pacific seaboard, which, broken only by a few passes and water gaps, renders communication with the inland difficult. It is this forbidding barrier,—the source of many glaciers,—with which the tourist becomes familiar while skirting the seaboard, and from this he gains his impressions of Alaska. Unless he extend his journey through the barrier from Skagway

over the White Pass, or up the Copper or Susitna rivers, he sees nothing of the fertile valleys and rolling uplands which lie beyond the mountains. This region of low relief, some 200 miles wide and stretching westward from the boundary 600 miles to Bering Sea, is sheltered from the Arctic winds by another high mountain chain which separates it from the polar sea.

Two great rivers, the Yukon and the Kuskokwim, drain this central province to Bering Sea, and they with their tributaries form a great artery of navigable waters some 4000 miles in extent. These rivers are, however, frozen during seven months of the year, and their mouths are blocked by ice floes for even a longer time. Moreover, they furnish at best but a circuitous means of reaching only a part of the rich gold, coal, copper, and agricultural lands of the interior.

The problem, then, is to establish railway communication between the Pacific, open to navigation throughout the year, and these valuable resources. This has been in part accomplished by the White Pass Railway, which connects Skagway with steamboat navigation on the Yukon. This railway, however, serves only the Canadian Yukon, and extends but 100 miles inland. Of more importance to Alaska is the Copper River Railway, which will open important copper and coal-fields and may eventually reach the Yukon gold-fields. About fifty miles of this line have been built, extending from Cor-



MAP OF ALASKA. NAVIGABLE WATER, MOUNTAIN AXES, AND RAILWAYS.

dova, on Prince William Sound, to the Abercrombie Rapids. The Copper River is navigable for steamers for about 100 miles above these rapids. Thus the beginning of a direct line of communication has been established.

The Alaska Central, of which about sixty miles are built from Seward, on Resurrection Bay, is planned as another trunk line, to pass through an agricultural district, to tap a valuable coal-field, and eventually reach the gold districts of the interior, a distance of about 500 miles. Both these railways will pass through regions of great scenic attraction and will introduce tourists to fields now inaccessible.

Another railway project into inland Alaska is a line from Valdez over the Marshall Pass and thence up the Copper River, of which a few miles have been built. Some construction has also been done on a line from Katalla, on Controller Bay, which is planned to tap the coal-field and also to build up Copper River. Surveys have also been made for a railway from Pyramid Harbor, in Southeastern Alaska, to Fairbanks, following a natural route along the inland front of the St. Elias and Alaskan ranges.

Other projects contemplate building westward from Cook Inlet and entering the little known Kuskokwim Valley and possibly eventually the gold districts about Nome.

Alaska's advancement depends largely on the completion of railways which shall open the great inland region to settlement and commerce. This central province, including copper, gold, coal, and agricultural lands, would seem to justify more than one railway, for it embraces an area as great as California and probably of equal wealth of resources.

ALASKA'S NEED OF POPULATION.

With the opening of this land will come the population needed for its mining and agriculture. It is to the pioneer placer miner that we owe the exploration of the resources of this field, but there is demand now for a larger and more stable population. It is estimated that there are about 17,000 people in the placer districts,—a number augmented in summer by five to ten thousand more. These hardly suffice to carry on the development of the known resources, let alone prospect new fields. About 12,000 people are employed in the fisheries, of whom only a



SEWARD, RESURRECTION BAY. THE COASTAL TERMINAL OF THE ALASKA CENTRAL RAILWAY.



CORDOVA, PRINCE WILLIAM SOUND. THE COASTAL TERMINAL OF THE COPPER RIVER RAILWAY.

part remain throughout the year. The coastal settlements and scattered lode districts include a population of ten to fifteen thousand more. It is probable, therefore, that the total permanent white population is between thirty-five and forty thousand people, augmented in summer by ten to fifteen thousand more. To these must be added the natives, including Indians and Eskimos, and totaling probably twenty-five thousand souls.

As the natives figure but little in the industries, which yielded \$33,000,000 in 1907, this must be credited to the white population, and shows a per capita production of between \$700 and \$800. This is a measure of the prosperity now prevailing.

It is not easy to forecast what the growth of Alaska's population will be. Certainly the metal and coal-mining industries should each support at least 100,000 people to develop the known mineral deposits. The fisheries, too, will undoubtedly expand. With such advancement some of the agricultural and grazing lands will certainly be taken up. If a third of the lands here classed as arable are now available for farming, it will furnish 20,000 homesteads, as the Alaska law permits the settler to take up 320 acres. This would support an agricultural population of over 100,000 people. Taking it all in all, it is perhaps conservative to look forward to an early increase of the population to half a million. Yet there is many a well-informed Alaskan who will assert that the

Tanana Valley alone will, during the next decade, attract such a population, and be fully capable of supporting it.

The tourist, whose good fortune it is to follow the inland passage to the magnificent ice sheets of Glacier Bay, to the thriving mining center and capital, Juneau, and to the picturesque old town of Sitka, must not think that he has seen Alaska. He could skirt another five hundred miles of coast line, to Cordova, Valdez, and Seward, and then, if he would see Alaska, his journey is but well begun. For the gold-fields of Fairbanks would lie 400 miles to the north, while those of Nome would be as distant as New York is from Chicago. Nor does this express all. It would be a still greater distance to the fog-bound seal rookeries of the Pribilof Islands and the great tundras of the north, with their herds of wild reindeer and their lonely Eskimo igloos, while to reach the westernmost Aleutian Island from Seward would require a journey half as long as that from New York to Seattle. Should the tourist retrace his steps to Skagway, cross the White Pass, and follow the mighty Yukon for 2000 miles to Bering Sea, his knowledge of Alaska, while much enlarged, would still be incomplete. Nor is this strange, for, as said before, this country is continental in its dimensions and in the variety of its resources. This is the important factor which should determine our attitude toward Alaska, our most valuable outlying possession.



FREIGHTING UP THE YUKON RIVER,

SPECIAL CROPS OF THE PACIFIC COAST.

BY CLARENCE E. EDWARDS.

ANCIENT alchemy was dominated by the theory that somewhere existed the element necessary to transmute baser metals into gold, and history is filled with stories of efforts of students of olden times to discover the secret Nature was so carefully hiding. Modern alchemy, on the western coast of the United States, has discovered the missing element, and the baser element,—grain,—is being changed into golden fruit by the application of life-giving water, trickling through thousands of irrigating canals.

Fifteen years ago California's wheat crop averaged from a million and a quarter to a million and a half tons every year, at a proximate total value of from \$35,000,000 to \$45,000,000, at best conditions of quality and price the value reaching as high as \$60,000,000. The wheat crop of the State for 1908 amounted to 250,000 tons, at an approximate value of \$10,000,000, and the crop of 1909 is estimated at 175,000 tons, at an estimated value of \$7,000,000. Fifteen years ago millions of tons of wheat were shipped annually from the State, going to the markets of the world as the surplus of one of the then great wheat-producing territories. To-day California raises barely sufficient to supply half of its own demand.

If we stop here, going no deeper into conditions, it appears that California has made a long step backward, but modern alchemy has worked a miracle, turning thousands of acres formerly given over to wheat-raising into orchards and vineyards, whence comes an annual crop bringing to the State the enormous total of nearly two hundred million dollars; into alfalfa fields and dairies, vegetable gardens and poultry yards producing many other millions, bringing up the grand total now produced to more than \$250,000,000 every year.

It is well that these things be considered when looking into crop conditions, for then one obtains a better idea and a more comprehensive understanding of the possibilities of that empire which lies west of the Sierra Nevada Mountains, forming the western littoral of the United States. What has

been so comprehensively begun in California in the way of changes is in its embryonic stage in Oregon, Washington, and Idaho, and these States which have been shipping large tonnages of wheat are rapidly developing into the great deciduous fruit district of the nation.

In large measure all this development is due directly to irrigation, and it is due to this element in agricultural-development that land has increased in value while the value of the product has kept pace, both showing a four-fold augmentation. Commensurate with its importance as a value builder, irrigation is also a prime essential in the augmentation of population. This may be exemplified by one district in California which, six years ago, was entirely given over to the cultivation of wheat. Ten thousand acres of land was producing an average of fourteen bushels of wheat to the acre in good seasons, this sometimes falling as low as an average of nine bushels to the acre. It supported, at most, twenty families.

Farm houses, with their shading fruit trees, now dot the district, and one hundred and sixty families have comfortable homes, while the average production year after year is \$100 an acre, almost a commercial certainty. Irrigation has provided a certain remedy for the former commercial uncertainty which attended all agricultural ventures. Where under the wheat régime no calculation could be made with certainty until the harvesters were actually garnering the grain, now crops raised under irrigation can be estimated with accuracy at the beginning of the season, thus benefiting not only the agriculturist but the banker and the transportation company, who can make their calculations for meeting the requirements of the season.

Irrigation has not only increased the productivity of land from \$20 an acre to from \$100 to \$500 an acre, but it has made it possible for the man of small means to become possessed of a tract of land which gives a home for his family, and provides sustenance and a surplus. It is this feature of

development that will be the great factor in population-building on the Pacific Coast.

Irrigation is doing much for Oregon, especially in the eastern and southern parts of the State. Extensive wheat areas, such as were formerly found in Umatilla County, for instance, are being changed into small farms devoted to fruit and mixed farming. The importance of the Government irrigation projects in the Klamath country of Oregon depends more on the object-lesson it gives to the people than on the amount of land that is being developed. Intensive farming on irrigated land means a breaking away from the old methods of agriculture, and intensive farming with diversified crops in Oregon is changing the characteristics of the communities, for with closer bonds coming from increased number of farms there is a social as well as agricultural development, and a consequent broadening of civilization.

In the Rogue River Valley, formerly given over to wheat and live stock, is now the home of the "big red apple" and the Bartlett pear, producing such enormous crops as to cause the accuracy of the report being questioned. A net return of \$500 a year per acre, not for a single or exceptional year, but year after year, from apples or pears, is the rule in this valley, and this from land formerly thought to be profitable when it yielded from \$35 to \$40 an acre gross. Irrigation and intensive cultivation have wrought the change, and now the fruit of this valley finds market not only in the Eastern cities of the United States, but brings even higher prices in the lands across the Atlantic, with increased freight charges, than it does in our own country.

Probably the most remarkable transformation in the Pacific Northwest is to be found in the Touchet Valley of Washington, that great fertile country lying along the Columbia River. Early settlers found the land covered with a rich and nutritive bunch grass, especially adapted to fattening cattle and sheep. Flocks and herds multiplied until it was discovered that the soil was rich in those life principles which are essential for grain, and then it developed into the great grain center of the Northwest. Irrigation's magic touch brought another transfor-

mation, and the land which in early days was dotted with sheep and cattle, and later resounded to the hum of the harvester, now sends apples, pears, peaches, and apricots to market by hundreds of tons, bringing such returns as were not even dreamed of by the early comers. From Vancouver, at the junction of the Columbia and Willamette rivers to the eastern end of the Touchet Valley irrigation is changing conditions and developing a great fruit country, at the same time restricting the grain area and cutting down the supply of wheat, barley, and oats.

Irrigated lands have reached their highest development in Chelan, Spokane, and Okanogan counties, where land, considered worthless a few years ago, is now selling at prices ranging from \$300 to \$2500 an acre, according to improvements and productivity. Land in this district has sold at \$3000 an acre and returned a good interest on the investment.

In the district comprised in the territory where Washington, Idaho, Montana, and Oregon join, taking in 150,000 square miles, the wheat crop for 1908 was valued at \$45,000,000, and the fruit from the same district was estimated at \$16,000,000. It is predicted that wheat production in this vast territory will decline from this time on, while fruit production will increase until it overshadows cereals.

What irrigation and fruit have done for the great State of California they are doing for the Northwest, this being evidenced by the great rapidity of settlement noted in Oregon and Washington, where the population has more than doubled in the last eight years. With the increase in population comes, necessarily, not only a decrease in the wheat area, but also an increase in home consumption, thus lessening the supply furnished the outside world from the surplus.

These are the conditions to be found today in the empire lying on the western coast of the United States, from British Columbia to Mexico. These conditions are changing with each passing year, and the day is not far distant when all of the grain raised in that vast territory will be consumed at home, and the world will be called upon to supply a deficiency.





J. J. HILL ADDRESSING THE CROWDS AT THE ALASKA-YUKON-PACIFIC EXPOSITION ON
OPENING DAY, JUNE 1.

WHAT THE VISITOR SEES AT THE SEATTLE FAIR.

BY R. S. JONES, JR.

ENTHUSIASTICALLY Western, the throng of 90,000 people who gathered at the Alaska-Yukon-Pacific Exposition grounds in Seattle on June 1 to watch the opening of the newest world's fair reminded one very naturally of a millionaire gold miner and his first automobile. Rich, healthy, care-free, the great Northwest came into possession of an exposition which she is going to have a lot of fun with and use to show the whole world how rich and healthy and care-free she is, inviting the world meanwhile to come and share in it all. Her new toy is both a plaything and a boast, a product of success, and a prophecy of greatness. It combines rather remarkably a great educa-

tional appeal for the recognition of the truth about Alaska, the Northwest, and the Pacific, with the happy-go-lucky spirit of the side show, crying out to the nation, "This is my treat, come on and enjoy yourself."

Opening day found a cosmopolitan gathering in Seattle to see the fair. A sea-port on the Pacific is always cosmopolitan. Seattle on June 1 was strikingly so. The Alaska-Yukon-Pacific Exposition had its conception in a white-washed frame hotel at Nome, and there were Alaskans at Seattle in numbers, hardy old prospectors, trappers, "mushers" of the old régime, clean-cut young mining engineers, railroad builders, business men of the present era. The second word of the

fair's name was derived from the Canadian Northwest, and that section was clearly represented by the lumbermen, the cannerymen, the rivermen. The third word included in its scope that polyglot hundred of nations, whose lands have their borders on the greatest ocean, and they were all on hand, slant-eyed Chinamen, gazing about always in their childlike innocence of manner, turbaned Hindus, dusky natives of the Pacific islands, unassuming gentlemen from the South American coast, and predominating among them all the sturdy little brown men of Japan, neatly dressed, courteous, intelligent, seemingly more thoroughly American in manners and tastes than many an American who gazed curiously at them. These foreigners of the Pacific, sprinkled freely among the crowds, gave to the exposition opening half of its uniqueness.

The other half was contributed by the exposition builders themselves. Deciding to hold a fair which should exploit the Northwest and the countries to which its commerce extends, they chose a site typical of the country. The exposition is built on a wooded hill, overlooking two wide lakes, while the background to eastward is the Cascade Mountains, and to westward Puget Sound and the Olympics. The land is a part of the estate of the University of Washington. Beginning with a definite end in view, the builders preserved throughout the natural beauty of the scene. The finished product when it was revealed to the world was a picture of soft ivory tints, with a background of tall evergreens, cleared away at intervals to give vistas of lake and mountain beauty. "The Fair in the Forest" is one of the apt titles applied to it by an epigrammatic journalist, who struck one of the keynotes of its artistry.

This was the picture when Seattle opened her fair on June 1. It is worthy of note, perhaps, that this exposition was actually ready in detail on the date which had been set three years ago. Into the completed picture moved the thousands of sightseers, quickly filling the outdoor natural amphitheater where the formal ceremonies were held, and spreading over the spacious grounds. The ceremonies themselves were of the most customary and approved order,—a little music, a few addresses, a single lengthy speech by the guest of honor, in this case Mr. James J. Hill, the railroad builder whose efforts have done so much for the country represented by the A. Y. P. fair. The people applauded

Mr. Hill heartily at intervals, although the veteran railroader could hardly be heard ten rows away, and read his speech throughout.

While Bishop Keator was pronouncing the closing prayer, the thousands suddenly realized that the hour of noon had come when President Taft, at Washington, was to touch the golden key and open the fair. The prayer was closed amid wild cheering and a salute of artillery as the great flag over the amphitheater unfurled, and Seattle knew that the President had started the wheels of her exposition. It was noticeable that among the few who stood with bared heads in silence until the last words of the prelate had been spoken were the officers of the Imperial Japanese Navy, who were guests on the speakers' platform.

"Seattle could not wait for her exposition to open," commented one of the local dailies. Once it was open, none of that enthusiasm disappeared. Turning their attention to the exhibit buildings, they quickly singled out those which offered the features typical of the plan and scope of the exposition. The usual buildings were there, Palaces of Arts, Manufactures, Agricultures, Mines, excellent and educational, even entertaining, but the true features of this exposition on the Pacific were found elsewhere. At the head of the Court of Honor, flanking the magnificent government exhibit building, stood the structures of Alaska and Hawaii, with the War Department's Philippine Building close by. To these exhibits flocked thousands of the crowd.

On either side of Rainier Vista, where the formal gardens stretch away toward the clearing which frames against the sky the tallest mountain peak in the United States, Rainier, lay the two buildings which gave the exposition its international dignity, Canada's and Japan's. Here again hurried the thousands. And on Dome Circle, overlooking the state buildings of the Pacific Coast trio, Washington, Oregon, and California, stood the great Palace of Forestry, tribute to the great natural resource of the Pacific slope.

Never before at an exposition was there a building like this, five-foot fir logs, first-caliber giants of the forest, forming the colonnade of its front, and the whole structure, as massive in style as the mountain range it faced, as simple as a temple of ancient Greece, depicting the immense industry which has brought untold wealth to the Northwest.

Near-by, oddly enough, stood a quaintly original sample of the conservation of the very resource which the Forestry Building exploited. Out of the very center of the little building erected by the Young Women's Christian Association grew two giant firs, magnificent specimens of a Western forest which once covered the entire grounds. Too beautiful to destroy, these trees had been left by the workmen, and the building constructed around them. With much appropriateness Mr. Hill had devoted many minutes of his opening address to the conservation of Western forests.



Admiral Sebree,
U. S. N.

Vice-Admiral Uriu,
Japanese Navy.

Admiral Barry,
U. S. N.

AMERICAN AND JAPANESE NAVAL COMMANDERS FRATERNIZING AT THE SEATTLE FAIR ON OPENING DAY.

To Alaska, however, should be given first prominence among the impressions of the Seattle fair, for the disillusioning of the world on the subject of the golden northland is the first object of the exposition. "The Truth About Alaska" is supposed to be and is told, though it shatters some of our notions of the romantic struggle against snow and ice which the gold hunters are said to have experienced. Alaska, then, is not a land of snow and ice. We might almost describe it as flowing with milk and honey, if we assimilated all that is said and shown about it in Seattle, and at the very least Alaska has lost much of her wildness, many of her terrors, and become a part of the white man's land, a part of that "God's Country" which the pioneers in far lands speak of at night around their fires. Alaska's wealth is not confined to gold. She has fisheries, agriculture, timber, fur industries, railroads, and steamships. She is a beautiful, civilized, prosperous country, with a reasonable northern climate and great natural industries. Her citizens no longer carry guns. There are no gambling hells and dance halls, no glamor of gold quickly lost, no robber judges and stalwart miners, no Soapy Smiths, no Poleon Dorets, no rule of might governing right. We have seen the last of the words that shamed yet fascinated us: "There's never a law of God or man runs north of fifty-three."

The last frontier is gone, and the Alaska-Yukon-Pacific Exposition is tolling its death knell. Alaska of to-day and to-morrow is the country of civilization, wealth, and opportunity, but not of romance. Alaska is commercialized. Fortunately they could not commercialize the scenery, the glaciers, the great black bear, nor the Eskimo (although they display him as a curiosity on the "Pay Streak"), and after studying the progress of Alaska in the handsome building set apart for it one may catch a glimpse of Alaska beautiful in the panorama of northern scenery at one corner of the building. In showing us Alaska commercialized, Seattle has not forgotten that in the far North there is constantly on exhibition scenery that surpasses the Alps, and that some day will be one of the tourist's meccas on this continent.

After Alaska, probably the strongest impression at the Seattle fair is that of Japan, the nation that has kept herself foremost in the affairs of the Pacific for the past five years. At Seattle, Japan's first effort has been to please. She has built a handsome exhibit and entertainment palace in a deep-green grove of evergreens, where the wisteria of the Orient contrast with the rhododendrons of the North Pacific. Here the courteous men of Nippon are busily engaged at their favorite occupation, next perhaps to making war, namely, making themselves agreeable. They give you information,



A SCENE ON THE "PAY STREAK" AT THE FAIR.

courtesy, and tea. They show you curios, exhibits, and courtesy. They treat you with courtesy, food, and drink.

The Japs are not the only curious foreigners at Seattle this summer. Opposite one another on the "Pay Streak," that motley gathering of good, bad, and indifferent shows which is to Seattle's fair what the Midway, the Pike, and the Trail have been to others, are two odd little villages, the one of them populated with head-hunting Igorrotes from the Philippines, the other with fur-clad Eskimos from Siberia. No stranger contrast can be imagined. Daily they give exhibitions of their native customs, in warfare, trading, and sports,—the Igorrotes in few but Nature's garments, tree-climbing, spear-throwing, dog-eating, canoeing, and dancing after their fashion; the Eskimos displaying their furs to the defiance of sunstroke, driving their dogs to sleds, paddling their long, swift kyaks on artificial lakes amid imaginary icebergs.

While Seattle and the Northwest have featured in their exposition the nations with which they deal, they have not neglected to advertise themselves. This summer's show is essentially a bid to settlers, an invitation to home-seekers, and an advertisement for Eastern capital to come West and help develop the natural resources which offer wealth on every hand. Dozens of new cities and new regions of farming and irrigation are "boost-

ing" for themselves at Seattle. Beginning with the "Seattle Spirit" one hears slogans at every hand. "You'll Like Tacoma" is flashed at you in massive electric letters. "Investigate Vancouver" is the word which stares at you from scores of billboards. "Yakima is Better" declares a prosperous young city in the irrigation belt. "Wenatchee, the Land of the Big Red Apple," is making itself known. "Where Dollars Grow on Trees" is a popular description for a leading fruit section, and so it goes, with "Boost, Boost, Boost," on every side. "The Cities of

Puget Sound. Your Hosts for 1909," is the title of an exposition booklet in which at least twenty cities set forth their claim to present prosperity and future greatness. And at the fair are demonstrations of many of the claims set forth. Nineteen hundred and nine is "booster" year for the Pacific Northwest. Settlers are hastening into the country, taking up land for dry farming or irrigation in the dry belt, or the old-style methods of farming on the moister west side of the Cascades. Though its name comes from many far-off lands, the Alaska-Yukon-Pacific will bring direct benefits to its builders in the Northwest.

As expositions go, which means from the standpoint of the person who has seen a half-dozen of world's fairs, Seattle impresses immediately by its compactness and its natural beauty. St. Louis and Chicago had larger fairs. Neither had a fair so beautiful. Forest, mountain, and lake have done what no landscape artist could accomplish. Pregnant with meaning as a landmark in the world's commercial growth, Seattle's fair is also a pretty picture, a successful combination of art and nature and a good show. Indications of the large attendance of the first few days, and the tide of travel which set in from the East during the second week, point to the financial as well as the artistic success of the enterprise which is marking a decided era in the development of the Pacific.

THE RAILWAY SITUATION IN THE NORTHWEST.

BY RAY MORRIS.

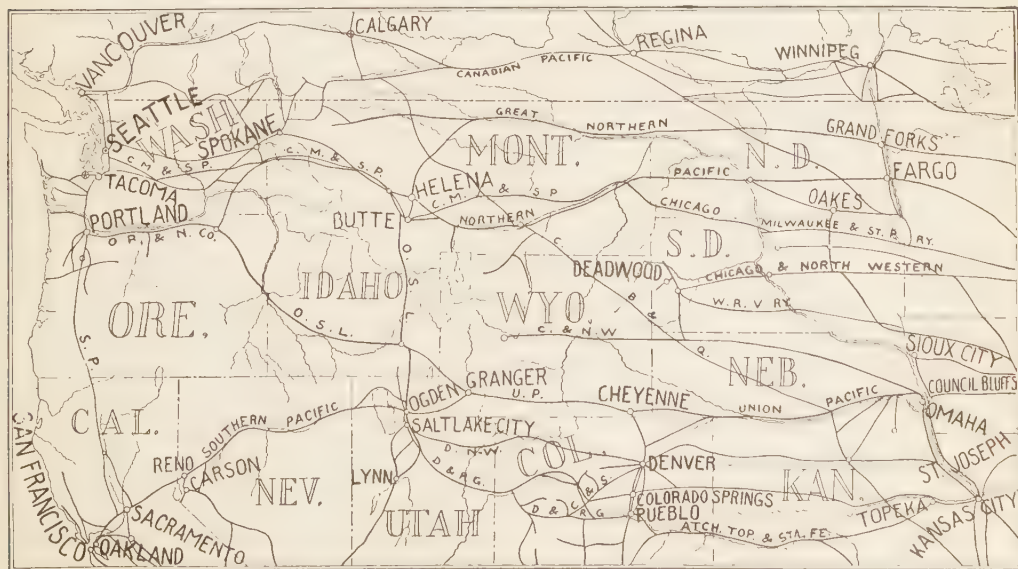
THEY say in California that if the Pilgrim Fathers had chanced to land at the Golden Gate, instead of at Plymouth Rock, New Hampshire and Vermont would not be discovered yet. Without pausing to debate this illuminating commentary on the respective fertility and general attractiveness of the two sections, it nevertheless may be taken as suggesting pretty well the great commercial problem of the Far West.

On the Atlantic seaboard of the United States a century ago, as to-day, there have been great wealth and an abundant population; on the Pacific Coast there exist great natural resources. But the natural resources of the Pacific side are separated from the capital and the population of the Atlantic side by 3000 miles of territory, and within that 3000 miles are mountains, deserts, and plains, constituting an enormous barrier, ranging in width from 500 miles in the north to 1200 miles in the south. Here was a territorial dividing line sufficient ten times over to make separate and competing republics of the East and the West. It was not the Con-

stitution which held the United States together during the growth of this great Western land; it was the forces of enlightened selfishness operating the transcontinental railways. In effect, the Government built the Union Pacific Railroad in 1869, and leased it to the proprietors; since that time the land-grant system has been the principal governmental inducement to the railways to enter new country, until the sudden turn in the prosperity of the West brought railway builders who asked nothing at all beyond the right of eminent domain, which may be described as the privilege to buy land for twice what it is worth!

HUNTINGTON, HILL, HARRIMAN.

Although the building of the transcontinental railway systems has been a task that has brought forth the best constructive and directive efforts of a large group of extraordinarily able men, three names are likely to stand at the head of this list for all time,—Collis P. Huntington, James J. Hill, and Edward H. Harriman. Mr. Huntington



RAILROAD SYSTEMS OF THE NORTHWEST.



A HARVEST SCENE ON THE LINE OF THE GREAT NORTHERN.

and Mr. Hill were the great pioneers. They saw visions, and they blazed their way through the wilderness, undeterred by mountains, rivers, alkaline deserts, and hostile stockholders. To build railways under these circumstances, takes both courage and genius; to build them at the right time and to the right places, takes a kind of geological statesmanship that is the gift of only a few in a generation. Mr. Huntington and Mr. Hill had all these qualities, and they did the work.

Mr. Harriman's task, however, was fully as great, although it lay along different lines. To be able to make a splendidly efficient machine out of a disorganized group of railways is to be possessed of just as much constructive ability as is required to build those lines in the first place, although the work required is of a different order. Mr. Harriman has created the most remarkable railway organization in the world, and operates, as one transportation machine, a group of railway lines which would go more than half way around the earth with steadily accruing benefits to the community and to the proprietors. He has opened up no new routes of importance, but he has seen the possibilities of existing lines and combinations of lines more clearly than any other builder in the history of railways, and he has established at once the credit and the organization necessary to carry out his great works.

The country has great need of such men as these three. The time for blazing new trails in the United States is pretty well gone by, and there is not much opportunity left in

Canada or in Mexico, but the chance to make efficient routes out of inefficient ones is still ample.

PROGRESS OF A DECADE.

A period of five years covers most of this recent accession of Western prosperity; ten years covers it all. Within that time much attention has been attracted by the great natural possibilities of the three Pacific States,—Washington, Oregon, and California,—and, to a lesser degree, of Montana, Idaho, and Utah to the eastward and of Alaska and British Columbia to the north.

Without going into details of the early railway development in this region, it is sufficient to say that there has for many years been direct transcontinental communication to Los Angeles and the citrous fruit country on the south; to San Francisco, to Portland, and to Puget Sound. Until comparatively recently, however, the great city of the Puget Sound country was Tacoma; now it is Seattle; while two points in the interior,—Spokane and Salt Lake City,—have attained an importance wholly unexpected, even as recently as ten years ago.

Tacoma and Seattle are not far apart in the amount of their export and import business, but Seattle has the foot of the ladder which connects Alaska with the rest of the United States, and, besides this distinction, it has grown to be by all odds the most important city north of the forty-sixth parallel and west of the Missouri River. Twenty years ago the Northern Pacific crossed the mountains to Tacoma, and rested there. A

separate road, known as the Puget Sound Shore Railroad, connected Seattle with Tacoma, and two passenger trains ran over the line daily in each direction. The running time of the fastest run between the two cities was then two hours and ten minutes; now it is an hour and twenty-five minutes; the Northern Pacific runs six trains a day between these points; the Puget Sound Electric Railway runs seventeen trains a day on a competing third-rail line, and the Chicago, Milwaukee & St. Paul has a third route graded and ready to begin operations.

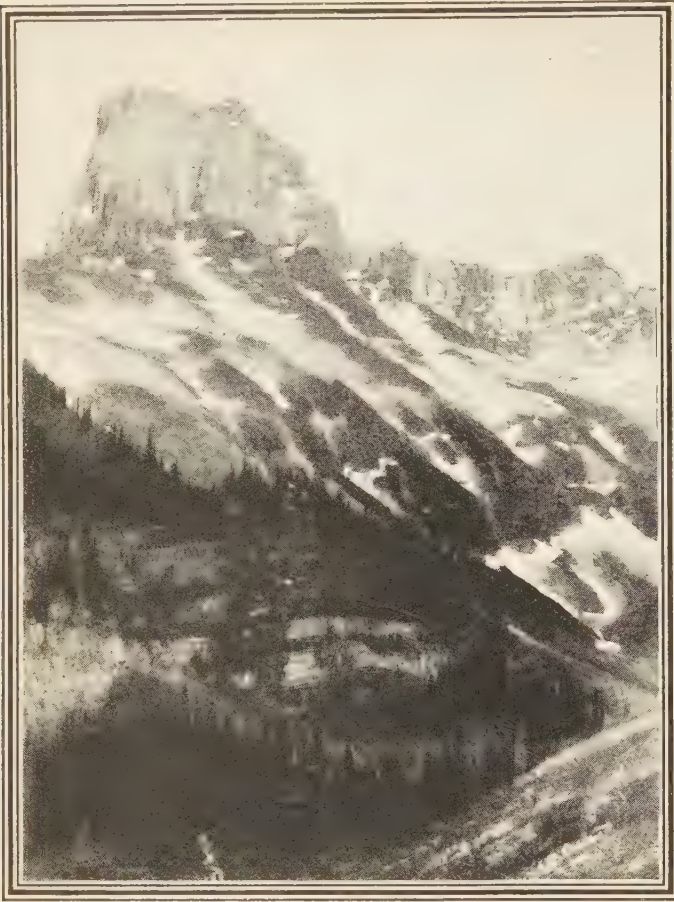
Ten years ago the Pacific Coast had transcontinental communications with the East over the Canadian Pacific Railway, across the border, and over the Great Northern, Northern Pacific, Central, and Union Pacific; Atchison, Topeka & Santa Fé, and Southern Pacific in the United States. The general scheme of each of these lines was to put a route through to tidewater as directly and quickly as possible, and then to expand and send out feeder lines along the coast and

along the great rivers; but in the hinterland, lying between the transcontinental divide and the coast ramifications, the railway facilities were not great and the main stems were far apart.

In the last half-dozen years this situation has been greatly changed. The Chicago, Milwaukee & St. Paul has entered the transcontinental field, sending out a line splendidly built and located, from its former outpost at the Missouri River across South Dakota, Montana, Idaho, and Washington; the Goulds are building an excellent line of their own from Salt Lake City to Oakland; the Denver, North Western & Pacific has traversed more than half of Colorado on its way to the Northwest; the San Pedro, Los Angeles & Salt Lake, now owned jointly by Senator Clark and the Southern Pacific, has thrown a rather hastily built diagonal from Salt Lake to Los Angeles, and the Canadian Government has joined with the Grand Trunk Railway in the construction of an elaborate and comprehensive transcontinental



TRACK-LAYING MACHINE LAYING RAILS ON THE CHICAGO, MILWAUKEE & PUGET SOUND RAILWAY (C., M. & ST. P. EXTENSION).



CATHEDRAL PEAKS, BRITISH COLUMBIA.

(Scenery on the line of the Canadian Pacific Railway.)

system, which is being developed by a rather curious intermingling of government effort and private effort. Meantime, the Canadian Northern has been adding persistently to the mileage of its cheaply built prairie lines, under the wise and far-seeing guidance of its extraordinary management. It is reaching out at the same time for the Pacific Ocean and for Hudson Bay, maintaining its great place as purveyor to the world's granary, while striving to get within touch of the coal and timber, and perhaps of the export business, of British Columbia.

Here is a great bi-national transportation system, which is steadily becoming greater. The mountain and desert barrier between the East and the West, would seem to be well-nigh forgotten, yet it is still there, and freight must still be hauled over it at great cost. How is it that this can be made commercially possible in the face of the intense world-wide

competition between commodities? The way this matter is working out is very little known east of the Rockies, and is not any too clearly understood in the Far West.

RAILROAD PROSPERITY DEPENDS ON POPU- LATION.

The answer is suggested in the statement that something more than half of the earnings of the Northern Pacific Railroad at the present time arise from business that never gets east of Idaho. Similarly, the Southern Pacific does a greater passenger business at San Francisco than the New York Central does at New York City. The grave need of the West has always been population; in recent years it has been getting it, to an extent perhaps not generally realized, and with this population employed in agricultural work and productive enterprises of

all kinds, it is no longer necessary for the transcontinental roads to make their living hauling raw materials, that cannot afford to pay a high freight rate, across great stretches of country that will eat the railways up if the rates are low. In the long and dreary days when it seemed impossible for a transcontinental road to make a living, the railways simply could not afford to haul crude commodities at rates which would enable those commodities to find a wide market.

The combined areas of Washington, Oregon, and California are considerably greater than the combined areas of New England, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, and North Carolina, yet the population of the three Pacific States is now approximately 3,700,000, while the eastern group has a population of about 32,000,000. There are more people in Greater New York than

there are in the three Pacific States, with their 323,570 square miles of territory extending from the Canadian border to the Mexican border.

WHY WESTERN RATES ARE HIGH.

This general situation is quite well understood, yet the logical effect it has had on railway development is not understood so well. Railway prosperity is more dependent upon population than upon any other factor. In densely populated regions there is an extremely heavy movement of manufactured articles and merchandise, which is not hindered by proportionately high freight rates; in sparsely settled territory this movement is very light, and the characteristic movement is in raw materials, which cannot find a market very far from home unless they have an extremely low freight rate. Freight rates in the West are high; they have to be high to make up for the lack of population. The people of the West have often complained bitterly of these rates, and there is no doubt that at times the rates have pre-

vented certain kinds of commodities from reaching certain kinds of markets; a fact which has been the cause of fully as much concern to the railways as to the communities served. The seven States, Idaho, Nevada, Montana, Oregon, Utah, Washington, and California, are populated at the rate of 6.4 persons per square mile, as compared with 391.8 persons in Massachusetts and 43 persons in Wisconsin, not long ago an agricultural outpost State. The railway builders have in their control the only available means of bringing up the population density of the West to some figure approximating that of the East; the problem has been to accomplish this and to remain solvent while the process was going on.

INDICATIONS OF PROSPERITY.

The record to date shows that the railways have partially succeeded and partially failed in this endeavor. At the present time certain great distributing points in the West have been developed to a point where they are capable of supporting very well the roads



LAKES IN THE CLOUDS, CANADIAN PACIFIC RAILWAY.

that supplied them, although this is not true of the entire Western country; but few of the roads accomplishing this have remained solvent during the process. The Union Pacific emerged from receivership and foreclosure in November, 1897; the Northern Pacific went into receivers' hands in 1893, and the reorganized company filed its articles of incorporation in 1896; the Atchison, Topeka & Santa Fe was sold under foreclosure in 1895. But, solvent or insolvent, the carriers brought people into the country, and the West owes much to the stockholders of the early nineties who, by their sacrifices, made possible the present prosperity.

The comparative building operations of a group of Western cities and of Eastern cities in 1908 shows perhaps more clearly than any other single statistical record the reason why railway operation in the Western States is no longer the unprofitable business it was fifteen years ago.

Building Operations, 1908.

San Francisco.....	\$31,668,341
Seattle	13,777,329
Portland	10,405,151
Los Angeles.....	9,931,377
Spokane	5,927,548
Salt Lake City.....	4,728,380
	\$76,438,126
Philadelphia	\$28,408,580
Pittsburg	12,141,138
Kansas City.....	11,670,468
Boston	8,552,425
Baltimore	6,544,706
Cincinnati	6,428,888
	\$73,746,205

This table shows that San Francisco spent more in new permanent structures last year than Philadelphia did; that Seattle spent more than Pittsburg; Portland almost as much as Kansas City, and Los Angeles more than Boston. The railways got a great deal of direct business in carrying the material used in these structures, although a good deal of material went by water to the Isthmus of Tehuantepec, thence across by rail and up the Pacific Coast by water again. But they are going to derive a great deal more business from the people for whom the structures were built.

LUMBER TRANSPORTATION.

The great staple commodity of these Northwestern States is lumber. Washington cuts a good deal more lumber than any other State in the Union, while Oregon has enormous forest areas still untouched, and the shipments from California are extremely

heavy, although of less importance than those of the Northern States. Washington, Oregon, and California together produce well over one hundred million dollars' worth of lumber every year, and are tending to increase this production very rapidly.

But lumber is a very bulky commodity; it moves long distances for its market, and the Pacific forests are in competition with the lumber from Wisconsin, Michigan, Louisiana, Mississippi, and many other States supplying the Eastern market. One of the great problems in the transportation of the Northwest has been to adjust a rate which would enable the cheaper grades of lumber to move east at all without direct loss to the railways, and this matter has not yet been satisfactorily adjusted to all concerned.

MOVING WESTERN PRODUCTS EASTWARD.

There are other staples in this Northwestern country, however, which are not all embarrassed by freight rates; salmon, especially in the Columbia River district; wool, in the States a little further east, particularly in Montana and Wyoming, and ores. In a recent year the Pacific Coast States produced 104 million pounds of salmon, worth nearly three and a half million dollars, and ranking only second as a sea industry to the oyster crop of the Middle Atlantic States. Montana and Wyoming, between them, produced nearly fifteen million dollars' worth of wool in 1907, the greater part of which moved to Boston, and could very well afford to pay a freight rate remunerative to all concerned. The Montana ores now have easy access to smelters east and west, while further south California fruits move readily to New York and Boston at a profit both to the grower and to the carrier. The freight rate on Columbia River salmon to New York City is about four-fifths of a cent a pound, so that a five-pound salmon would show only four cents of its cost in the New York markets to represent the labor of carrying it, properly refrigerated, for 3000 miles. Similarly, the freight rate on a California orange brought from the Riverside district, near Los Angeles, to New York, is two-thirds of a cent, including also the costs of icing on the road. It is something of a statistical curiosity to note that the railways carry an orange a mile for the five-thousandth part of a cent!

RETURN HAUL OF MANUFACTURED GOODS.

Of course, it is obvious that these enormous hauls at extremely low rates would be



AN ENGINEERING ACHIEVEMENT ON THE CHICAGO, MILWAUKEE & PUGET SOUND RAILWAY.
—THE CASCADE MOUNTAINS, WASHINGTON.

impossible without the return movement of manufactured products which the Western communities buy in the Eastern markets. The output of manufactured products in California is considerably less than in Wisconsin, while Washington and Montana together manufacture less in a year than Rhode Island does, and Oregon is about on a par with Arkansas. California, Oregon, Washington, and Montana together manufacture about 620 million dollars' worth of goods per year, while New York State manufactures 2500 million dollars' worth,—just about four times as much! In round numbers, New York manufactures at the rate of some \$300 per year per unit of population, while California manufactures at the rate of a little over \$200 a year. This is a very material difference and illustrates quite graphically the need for a heavy Western movement of manufactured articles.

As suggested in the comment on the way the earnings of the Northern Pacific are divided, the growth of the strong Western cen-

ters has been responsible for a very heavy local Western business. Imports and exports from the Willamette, Puget Sound, and San Francisco together, in 1908, corresponded roughly with those from Boston and Charleston, and a very material part of this business had no connection at all with the Atlantic States. San Francisco receipts of grain and flour during 1908 were almost as great as those at New Orleans.

These statistics and comparisons have been given to illustrate certain Pacific Coast developments which have been surprisingly rapid during the last decade, although the principles involved are not new. Much attention has been paid to the position of the railways in this development, because they are essential to it beyond any other factor, while, conversely, they cannot make a living without it. The Harriman lines, the St. Paul, the Western Pacific, and the Canadian lines have at no time figured their prospective earnings on the basis of a division of the traffic already in sight; they have counted on

the growth which is taking place with cumulative rapidity, and is already overtaking existing facilities.

A HILL-HARRIMAN TRUCE.

Following the general rehabilitation and realignment of the transcontinental railway systems after the 1893-1896 depression, the situation, briefly, has been that the Harriman lines have had a single rail competitor for the southern part of this great empire,—the Atchison, Topeka & Santa Fé,—while in the northern part their territory has ended at the Columbia River. Beyond the Columbia, the Hill lines have served the district south of the Canadian border, and the Canadian Pacific, the district north of it. There was little debatable ground, but where there was any the fight between the Harriman and Hill lines has been bitter, as at Portland.

Without going into the complexities of detail, it is sufficient to say that this situation is now entirely changed, partly by the entry of the new lines, present and prospective, partly by a natural desire on the part of both protagonists to avoid the kind of war that costs more than victory is worth. The Portland gateway has been opened,—that is to say, an arrangement has been made between the Northern Pacific, Union Pacific, and Great Northern under which the Northern Pacific line between South Tacoma, Washington, and Vancouver and the bridge over the Columbia River will be used jointly by the three companies. This stretch of railway, already busy, will be double-tracked, and will be used indiscriminately for Hill and Harriman through traffic routings.

SPOKANE'S STRATEGIC POSITION.

This arrangement is not yet a month old. Prior to it, the Northern Pacific and Great Northern, building jointly, had just completed an admirable line down the north bank of the Columbia River from Pasco to Portland, paralleling the Oregon Railroad and Navigation Company every foot of the way, and giving the Hill roads the best route between Portland and Spokane, while Spokane derived a strategic position of great strength from the process. This interior city, bearing somewhat the geographical relation to Seattle that Buffalo does to New York City, but ensconced in an extraordinary great valley, called with much justice the inland empire, is the gateway to the Snake River country, and possesses also a pass into British Colum-

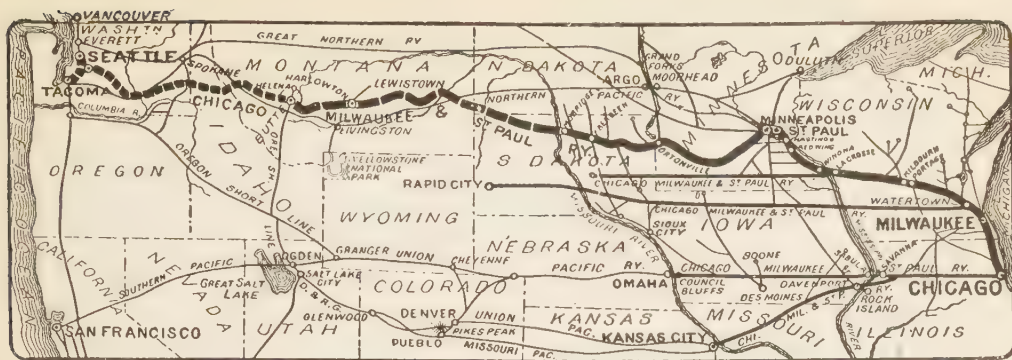
bia. The Canadian Pacific has recently obtained permanent entry there, through control of a little line stretching across the international boundary, and gets access in this way to traffic which it could not otherwise reach, while it adds greatly to the bargaining power of Spokane.

THE ST. PAUL EXTENSION.

Meanwhile, the Chicago, Milwaukee & St. Paul, building well and rapidly, to take full advantage of a period of low prices, has established connections between St. Paul and Seattle. For the present, it must be grouped with the Great Northern and the Canadian Pacific, as a line which is going to be a through carrier, rather than a great Western local road, like the Northern Pacific or the Southern Pacific. But the St. Paul runs just far enough south of the Hill lines, on its long stretch across Idaho, Montana, and the Dakotas, to derive a considerable advantage in the agricultural, wool, and cattle business tributary to it, and on its Western end, although it will take it many years to achieve the mass of feeder lines that bring business to its older neighbors, it has already perfected arrangements to get into the Gray's Harbor (Washington) timber country, and is in position to extend further.

DEVELOPING A WESTERN MARKET.

So the Pacific Coast, given for many years to proclaiming its extraordinary natural resources to an audience interested in other things, now finds itself the most important region of railroad extension in the Union, and can predict with certainty that the work already laid out will bring it additional natural resources of a kind which it urgently needs,—people! Curious as the statement may sound, the transportation facilities of this region are already somewhat in excess of the needs of the raw materials seeking a market across the continent, and when the St. Paul, the Western Pacific, the Grand Trunk Pacific, and the Kansas City, Mexico & Orient roads are completed, they will be more so. But meantime two important things are happening,—a great market for the grain, lumber, and ores is being created on the Western side of the transcontinental divide, and at the same time the value of these commodities is steadily rising. The prevailing tendency toward higher taxation, higher wages, and higher manufacturing, construction, and material costs is going to make railway transportation more expensive, too, but



THE PUGET SOUND EXTENSION OF THE ST. PAUL SYSTEM FROM THE MISSOURI RIVER TO THE PACIFIC COAST.

the increased cost may not be borne by the through business. If the local business can "carry" the road, the through business can be done cheaply for the sake of its effect as a developer.

The grain of the Pacific Coast States and the hinterland already moves West,—that is to say, it is consumed locally, with diminishing exports to the Orient, and to Europe, via the Straits and Cape Horn. Low grade lumber is the only great Northwestern commodity which is now seriously obstructed by freight rates in its effort to find an Eastern market, and it will not be many years before the enhanced market value of the timber of Washington and Oregon will place it in the central and eastern region now supplied by Louisiana and Mississippi. The timber can move up to the freight rates better than the freight rates can move down to the present values of the timber.

STEAMSHIP CONNECTIONS.

The transpacific export and import business in its relation to the Pacific group of railways is one of the great problems scarcely touched upon as yet, which remains for the next decade to work out. It is complicated by the provisions of the Interstate Commerce law, requiring advance publication of rates; by the increasing home demand and the consequent

increased value of the flour and grain, formerly available for export, and by many local difficulties. Each of the transcontinental lines has its transpacific steamer connections, and these date back to 1869, when the Pacific Railroad Company made an alliance with the Pacific Mail Steamship Company. In 1874 the Union and Central Pacific Railroad companies chartered four White Star steamers and established their own Oriental service; in 1897 the great Japanese Toyo Kisen Kaisha was organized, and the Southern Pacific let this company into the group of its Pacific connections on equality to avoid a rate war. By this time the Southern Pacific had acquired the Pacific Mail Steamship Company.

The Great Northern tried a costly pa-



FISH CREEK VIADUCT.

(Rocky Mountain Division, C., M. & P. S. Ry.)



THE STEAMSHIP "MINNESOTA" OF THE GREAT
NORTHERN TRANSPACIFIC FLEET.

triotic experiment in building two enormous steamers at New London, Conn., for the transpacific trade, and was doubtless relieved when one of them was wrecked in 1907. The American shipping laws make deep-sea competition between American vessels and foreign vessels quite hopeless, and this fact may as well be recognized frankly. The

Northern Pacific has charter arrangements with the Boston Steamship Company, operating a line of steamers between Puget Sound and the Orient, and the Chicago, Milwaukee & St. Paul has made arrangements with a Japanese line, which contracts to have its first boat of this service in Tacoma on August 2 of the present year.

The transpacific steamship service in the railway interest has one or two rather interesting economic aspects. In the first place, it is not profitable; in the second place, it represents an effort to divert commerce from undisturbed natural channels,—or, rather, to create natural channels where none existed before,—which is not quite paralleled on the Atlantic. The Canadian Pacific has its own splendid Atlantic service and Pacific service as well, but, with this exception, it has not generally been found profitable for great railway systems and transatlantic steamship lines to work together. When the commerce of the Pacific Coast has developed as far as the commerce of the Atlantic Coast has, the prediction may be hazarded that there will be a great drift of traffic to one or two controlling centers, such, for example, as San Francisco and Seattle, and that it will not be necessary for any railway to indulge in costly oceanic feed lines. But this period is probably a good many years off. In the meantime, each transcontinental railway must fend for itself, and if it does not encourage certain steamers to bring it certain traffic, both the steamers and the traffic will go to somebody else's port.



LAKE LOUISE, ON THE CANADIAN PACIFIC.

DR. EDWARD EVERETT HALE.

IT had been expected that Dr. Edward Everett Hale would write for this magazine a prefatory note on the centenary of the birth of Dr. Oliver Wendell Holmes, to accompany what we are printing, for the second time, from Dr. Hale's pen, written at the time of the death of his friend and fellow-townsmen nearly fifteen years ago. As the Holmes centenary is approaching (Dr. Holmes was born August 29, 1809) there seemed to us nothing more fitting than to print once more a part at least of the admirable sketch of Dr. Holmes' career written for us by Dr. Hale and published in this REVIEW in November, 1894.

Dr. Holmes attained the age of eighty-five. Dr. Hale, who was thirteen years younger, was born April 3, 1822, and was, therefore, past the age of eighty-seven when he died on June 10, in his old home at Roxbury, which is now part of Boston. For six years past Dr. Hale had been chaplain of the United States Senate, and he was a notable figure, through these last years of his life, at the nation's capital. His patriotism was so lofty, his faith in the whole country and its future so strong, that it was pleasant for his friends to see him in his octogenarian years honored among the country's leaders and making every circle that he entered better and happier for his presence.

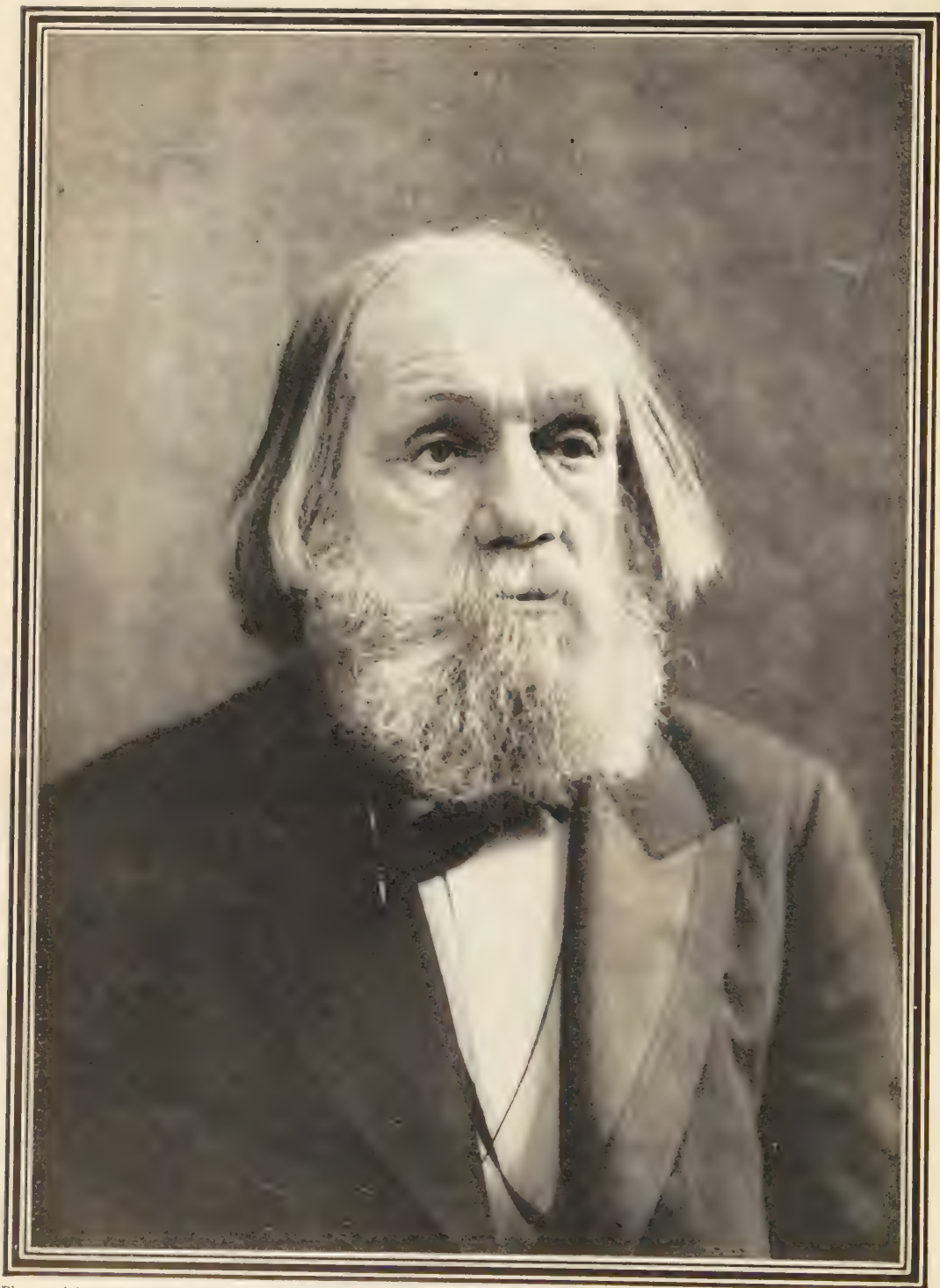
Although his name has so long been associated with those of the great men of letters and of reform movements of the New England school,—Emerson, Lowell, Holmes, Longfellow, Whittier, and a dozen others,—Dr. Hale was a more truly national personage, in his knowledge and sympathies, than were any of the other New England thinkers and leaders. His early training under his father in the office of the Boston *Daily Advertiser* was broadening, and he was out in the world and mingling with men at a very early age, graduating from Harvard College while only seventeen. (He was just about to observe the seventieth anniversary of his graduation in the Class of 1839.)

After leaving college he got some valuable experience as a reporter and correspondent at Washington. At the approach of his eightieth birthday shortly after his retirement from his pastorate in Boston, and a year before he was made chaplain of the

Senate, Dr. Hale visited Washington and was invited to luncheon at the White House. He had not been in that historic building for perhaps a year or two; and while waiting for the President to appear he entertained the present writer with some of those delightful recollections which made his conversation always charming and noteworthy. He spoke of Washington as it was in 1840. He had been interested in the political campaign of that year, which resulted in the election of Harrison and Tyler.

Happening to lift his eyes, in the room where he was waiting, to the portraits of President Tyler and Mrs. Tyler, he recalled the time when it was his custom to drop in very often in the afternoon to have a cup of tea with the lady of the White House. This was in 1841, Harrison having died a few weeks after his inauguration in March of that year. Dr. Hale's picture of the pleasant simplicity of life at the White House when he was a Washington correspondent, sixty-eight years ago, was as detailed and vivid as if he were portraying something that had happened the day before.

But this was not the end of Dr. Hale's reminiscences of Mrs. Tyler, apropos of the portrait hanging on the wall before him. Twenty years later, in 1861, he was attached to the personal staff of Gen. Benjamin F. Butler, of Massachusetts, in the capacity of secretary, and had charge of General Butler's correspondence. General Butler was on the James River in Virginia. One day he received a letter from an irate lady complaining that the Federal troops were milking the cows on her plantation. The lady proved to be Mrs. Tyler, widow of the former President, who had been kind to the youthful Hale at Washington in the early forties. Of course, Dr. Hale was glad to follow General Butler's instructions, and not only to express regret, but to give Mrs. Tyler every assurance that her plantation should be unmolested. Here was a man who was doing good work as a newspaper writer and correspondent some seventy years ago, and who was still so much a man among men in our own day that scarcely any one knew that he was ill until the newspapers announced his death. A week before he died he had attended a celebration in honor of the ninetieth



Photograph by Davis & Eickemeyer, N. Y.

DR. EDWARD EVERETT HALE.

(Born, April 3, 1822; died, June 10, 1909.)

birthday of Mrs. Julia Ward Howe, author of poem, "Battle Hymn of the Republic."

Dr. Hale will be remembered by the thousands who knew him and by the hundreds of thousands who had heard him speak as a great personality. There are those who, knowing his literary talents, felt that his energies were too freely put forth in many other fields of endeavor. But it was Dr. Hale's chief business to live in an active way, to preach, to help all sorts of movements and causes that he believed in; and he wrote stories and contributed to literature as an incidental matter, out of the abundance of his knowledge and experience, and as a restful by-play for his creative talents.

When a country or a civilization can produce good and great men like Dr. Hale it stands vindicated, and it can be forgiven for many deficiencies. He had all the marks of a great man, doing many things exceedingly well, yet always greater in himself than in any of his achievements. When, at eighty years of age, he retired from the church in Boston, which he had been happy to serve as pastor for a very long period, Mr. George Perry Morris prepared for this magazine an appreciation of his work and an account of his life. From what Mr. Morris wrote then we condense and republish the sketch that follows herewith as a convenient summing-up and a sympathetic review. S.

DR. HALE'S BUSY CAREER.

[The following brief biographical sketch of the late Dr. Edward Everett Hale is condensed and adapted from a character analysis by Mr. George Perry Morris, which appeared in this REVIEW in May, 1901. No alterations have been made other than those demanded by lapse of time and change of circumstances.—THE EDITOR.]

TWO facts immediately arrest the attention of one who attempts to draw a pen-picture of the late Dr. Edward Everett Hale. First, the length of his service to mankind and the breadth of his sympathy and activity; second, the individuality of his methods and words. No one like him, or even faintly resembling him, appears among the Bostonians or New Englanders of this generation, or did in the one which immediately followed his own.

His career as a journalist began ere he graduated from Harvard College, in 1839, being then only seventeen years old. His career as a minister began in 1842, the time between this and 1846, when he became the pastor of the Church of the Unity, Worcester, Mass., being spent as a ministerial free-lance. His career as a learner and teacher in charitable and philanthropic activity began about the same time, when he was elected to serve on Worcester's Board of Overseers of the Poor. His career as a publicist began with fighting against the institution of human slavery, when in 1845 he wrote and published a pamphlet on "Emigration to Texas"; and this was followed by acts and writings which entitle him to be called one of the builders of the Commonwealth of Kansas as a mother of men and women who love liberty and literacy. His career as a man of letters began with con-

tributions to the *Rosary* in 1848. His career as an educator began as a teacher of Latin in the Boston Latin School during 1839-41, and since then he had held many responsible advisory, administrative positions, such as overseer at Harvard, as trustee of Antioch College, as councilor of the Chautauqua Literary and Scientific Circle.

Dr. Hale said of himself that he was cradled in the sheets of the daily newspaper,—the *Advertiser*,—which his father owned and edited, and it is a statement that is essentially if not literally true. Had he been content to live the wearing, drudging life of a journalist, he might have become the rival of Greeley as the molder of Northern opinion. For he had had three indispensable qualities of all great journalists,—a nervous, colloquial English style, full of life and the human quality, a scent for news, and a clean-cut, tenacious memory which has stored away the impressions of a vigilant eye and a sensitive ear, so that what he once said of Walt Whitman had been pre-eminently true of him: "What he has once seen, he has seen forever."

But this drudgery of journalism Dr. Hale was not willing to endure; so he turned to the pulpit and the pastorate. Nevertheless, in conjunction with the pastorate, he was seldom without an organ of his own, or a journal in which he could write as he pleased.

Up to the time of his death he had his own department in the weekly organ of the Unitarian denomination and was sponsor for the *Lend a Hand Record*, a monthly record of philanthropic deeds and plans. His most pretentious and the longest-lived journal was *Old and New*, a high-grade religious and literary monthly, which finally was merged with *Scribner's Monthly*. For the first year of its life he was co-editor with Mr. Edwin D. Mead in producing the *New England Magazine*.

Dr. Hale, in commenting on his career as a journalist, had testified to his indebtedness, as a man of many other modes of activity, to the training which journalism gives a man by teaching him to observe, to describe accurately what he observes, and that promptly. His rules for writing were these:

1. Know what you want to say.
2. Say it.
3. Use your own language.
4. Leave out all fine passages.
5. A short word is better than a long one.
6. The fewer words, other things being equal, the better.
7. Cut it to pieces.

Such rules are eloquent of practical experience as an editor.

Dr. Hale's career as a Christian minister,—he refused to be called a "clergyman,"—began with his licensure, in 1842. Then, in 1846, he went to Worcester, and in 1856 he returned to his native city, Boston; and not until 1900 did he give up the pastorate of the South Congregational (Unitarian) Church or cease preaching weekly. Of this church he was long *pastor emeritus*.*

This much must be said of all his sermons: They always have been in language of the day and understandable of all men. His themes also have been contemporaneous. God manifesting himself in America of the nineteenth century had interested Dr. Hale more than the Jehovah of the Jews or the God of the schoolmen of the Middle Ages. His gospel had not been "a theologic gospel of hay or wood," and he had always avoided the "parsonic cadence."

The explanation of Dr. Hale's abiding influence in his own church and denomination, and with the Christian public, is to be found in his "continuous disclosure of a beautiful spirit." From the first day he entered a pulpit he cared infinitely more for the Kingdom of God than for the Church

universal or local. His people have been taught to be charitable in spirit and deed, and, so far as possible, wise in their method of doing good; and no good cause, civic, educational, or philanthropic, whether national or local in scope, failed to receive suggestive, intelligent discussion in his pulpit, and in the church's classes and conferences. To him came for succor countless unfortunates and needy folk, who never found him too busy to give counsel and practical aid.

To attempt to chronicle merely, let alone describe, the part played by Dr. Hale as a social reformer and as an altruist is to be amazed at the prescience, the range, and the indefatigability of the man. Just as no person deserving pity had been turned away from his door, so no reform movement had appealed in vain to him for aid. The negro as a slave and the negro as a freedman, the Indian as he was before the days of the annual Mohonk Conference and as he is now, and immigrants from Europe of all nationalities have had a champion in Dr. Hale. Civil-service reform, prison reform, the Law and Order League, knew him as an advocate. Charity administration, whether on the old individualistic basis or as at present organized, had counted him an alert and influential promoter. By first writing his story "Ten Times One Is Ten" and thus leading up to the organizing of the King's Daughters and the Lend a Hand clubs, and then by writing the story "In His Name," Dr. Hale did more than any other man to enlist the youth of the country in altruistic service and in a healthy, objective type of religious activity, his motto for them being,—

Look up, and not down;
Look forward, and not back;
Look out, and not in;
Lend a hand.

Last in point of time, but not least in importance, of the reforms championed by Dr. Hale was the project of an international arbitration tribunal, or permanent judiciary for international disputes. As long ago as 1889 he preached in Washington, D. C., before high officials of State a sermon in which he outlined a plan very similar to that adopted at The Hague. Year after year he urged this at the Mohonk conferences and elsewhere.

As a publicist and patriot, Dr. Hale did invaluable work preceding the Civil War as an agitator against slavery, although he never was an extremist like William Lloyd Garrison and Wendell Phillips. During the

* From 1903 until his death Dr. Hale was Chaplain of the United States Senate, and was very highly regarded by its entire membership.

war, by such poems as "Take the Loan" and "Put It Through," he spurred the Northern public on to do its duty. As director of the Freedmen's Aid Society, as official of the Sanitary Commission, he found ample play for his organizing power and skill. But these activities were comparatively restricted and local in their range. It was as the writer for the *Atlantic* of articles full of hope and sane optimism that

Dr. Hale's influence at this time was widest. In this periodical appeared, in 1863, his masterpiece, "A Man Without a Country," which, besides preaching its sermon, demonstrated that America had a short-story writer of the first rank. Dr. Hale's fertility as an author may be inferred from the fact that the catalogue of Harvard University has more than one hundred and thirty titles of his books and pamphlets listed.

The son of a Whig, a Free Soiler in youth, Dr. Hale early took his place in the ranks of the Republican party, and never left it, preferring, like his lifelong friend Hon. George Frisbie Hoar, United States Senator from Massachusetts, to do his reform work as a partisan inside the breastworks, rather than outside. Hence, he never had been a clerical scold or a malinger of public officials.

As an educator Dr. Hale's service was to lend a hand to every scheme that had been devised to lessen illiteracy and popularize learning in the United States. Whether as overseer of Harvard,—his alma mater,—or as councilor of the Chautauqua Literary and Scientific Circle, or as trustee of Antioch College, or as friend of Hampton Institute and Tuskegee, his endeavor was to make the humblest American eligible as a citizen of the republic of letters. In his educational as in his political and ecclesiastical ideals, Dr. Hale was a thorough democrat.

No survey of Dr. Hale's career would be complete without some reference to his place



DR. HALE'S HOUSE AT ROXBURY. MASS.

as an orator. Whether as lecturer before lyceums, historical societies, Chautauqua assemblies, or bodies of college students and school pupils, or as formal orator on State occasions, or as after-dinner speaker, Dr. Hale had always been popular,—not because of his graces of oratory, which his uncle, Edward Everett, had to a superlative degree, but because of his wit, his common sense, his fathomless stores of reminiscence, his facility in conveying his thoughts in speech understood of common men, his optimism, and not infrequently his overwhelming eloquence, especially when deeply stirred and when expounding Americanism. His voice and figure were like no other man's,—the voice being deep and muffled, the body angular and massive, the countenance always benign yet rugged.

Admirable as had been Dr. Hale's career as a journalist, clergyman, philanthropist, author, and educator, it was as "professor of America" to his generation that he had done his best and most unique works. By birth of best New England stock, having, as a boy, the historic Common as a playground; early made aware by conversation in his father's home of the inner meaning of the burning issues of the hour, and privileged to hear history and politics discussed by men like Daniel Webster, Edward Everett, and other Whig leaders who were making history and shaping politics; in youth an ardent conspirator for the triumph of liberty in Kansas,—his whole

career, whether you consider the influence of heredity or environment, or his free choices of friends and pursuits, had made him an American *sui generis* and had fitted him to do for the American public what he conceived his "professor of America" as doing

in a college,—namely, showing men that there "is such a reality as American thought, that there are certain principles which belong to the American Government, that there are certain feelings which are experienced by none but an American."

OLIVER WENDELL HOLMES.*

BY EDWARD EVERETT HALE.

A HAPPY boy, in a happy home, with books and friends, with the love of nature and the chance to enjoy it; such are the conditions with which Oliver Wendell Holmes starts upon life. It proves that they answered his purposes quite as well as if, like Colonel Jack, he had spent his boyhood on ash-heaps, and had then been sold as an apprentice to the colonies. In writing the life of James Freeman Clarke, some years ago, I had an opportunity to look over Dr. Clarke's notes of the experience of the Harvard class of 1829. This means the experience of the boys who, at about sixteen years of age, entered Harvard College under President Kirkland, and who graduated in 1829, just after Josiah Quincy had assumed the charge of the college. I had a good deal of talk, sooner or later, about those college days with Dr. Holmes. It was in the old time, when every boy studied what every other boy studied.

There was no talk of elective studies then. But the little school did its best to give an all-round training to those whom it had in hand. Of course, when they left college, life opened upon them with a certain suddenness; the different men went to their different lines of work, and were almost surprised to see how wide was the field. Holmes described to me, with a good deal of humor, his own astonishment when, on returning from Paris, he met Clarke in the college yard one day, with some large book from the library under his arm, and found for the first time how wide was the range of study in which Clarke was engaged. I have little doubt that Clarke was as much surprised to find the range of Holmes' after college work. But it will not do for us to speak slightly of what they gained in those four years and the years which had preceded. They left college with a decent knowledge of Greek and Latin, they

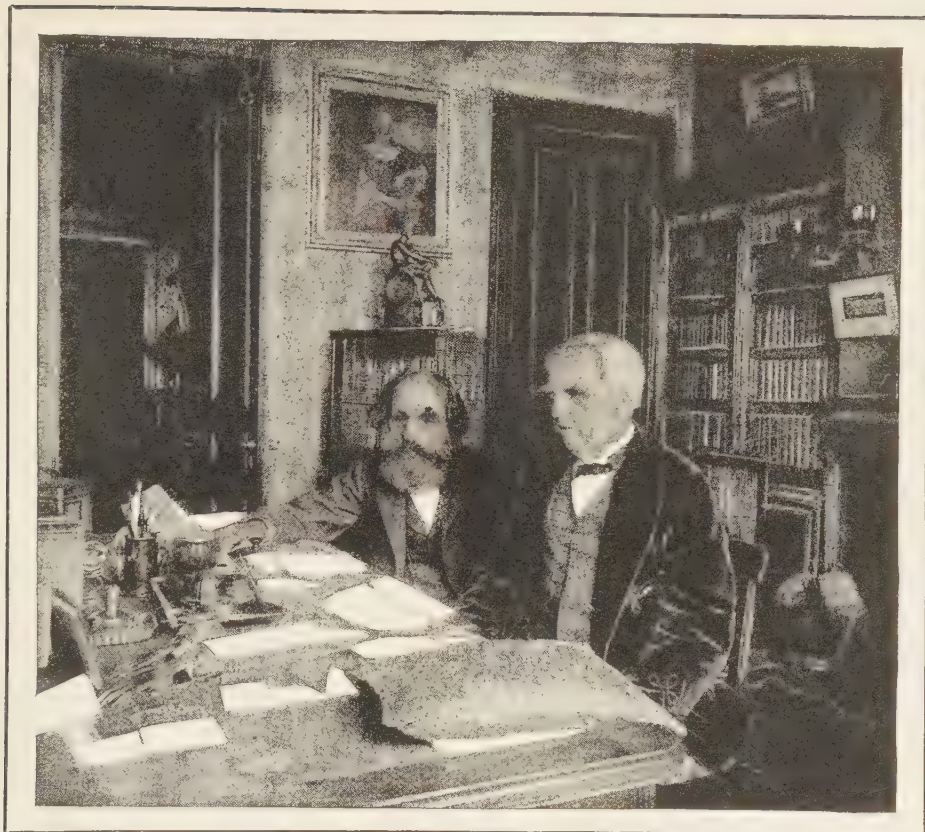
could read French and Italian and German, they understood the language of their time if a man spoke of botany or of chemistry; and, in short, they were ready to begin.

HOLMES' SCHOOLING AS A WRITER.

He had the literary passion from the first. The moment he took hold of the *Collegian*, a little graduate magazine, the *Collegian* became popular; and he has never written better verses than some of those which were published there. Indeed, he would say himself that the spirited verses which saved the *Constitution*, and which are the first he prints in his collected poems, are as good as anything which there is in the volume. I am sure he would have been glad to join in the tribute of regard and respect which every man who went through Harvard College between 1819 and 1851 pays to the memory of Edward Tyrrel Channing, who for those years held the chair called the Boylston Professorship of Rhetoric and Oratory. A distinguished critic once said to me that the men trained at Cambridge for those thirty years wrote the best English, as a whole, of any men in America. I am sorry to say that he added that after that time Harvard lost that pre-eminence. If this was because her pupils had carried the secret into other universities, we who were under Edward Channing do not care. This is certain, that we are all grateful to him for taking the nonsense out of us as far as he did, and that it would be well for most of us if we had had more of that training. Holmes had it when Channing was at his prime, and Holmes was ready to accept criticism. He liked criticism, whether on his own work or other people's.

He was appointed a professor in the Medical School at Hanover, in New Hampshire, —Dartmouth College,—and his lectures there took him away from Boston for some months of every year, until the year 1847.

* Reprinted from the REVIEW OF REVIEWS for November, 1894.



DR. HOLMES AND DR. HALE, IN DR. HOLMES' STUDY.

(Special interest attaches to this photograph because of the approaching celebration,—August 29,—of the centenary of Dr. Holmes' birth and the recent death of Dr. Hale, whose tribute to his lifelong friend we are reprinting here in part from our issue of November, 1894.)

He was then appointed to the similar chair in the Boylston (Harvard) Medical School, and gave up his work at Dartmouth College. Once and again he addressed audiences, notably in the case when he attacked the Homeopaths, in two lectures for which they have never forgiven him, which he delivered under the auspices of the Boston Society for the Promotion of Useful Knowledge. But you might say nothing happened, in public affairs or private, in which he was not interested. The titles of his occasional poems are a sort of calendar of what was going on in the world. And it was a perfect matter of course when Moses Dresser Phillips, of the firm of Phillips & Sampson, determined on publishing the *Atlantic Monthly* that he should press Holmes into the service, if he would come, among the distinguished men who gave the reputation to that journal from the beginning. A large element of the *Atlantic's* success, as we all

know, came from the brilliant dash of the "Autocrat of the Breakfast Table."

THE PHYSICIAN AS MAN OF LETTERS.

His companions in his profession know very well how accurate he was in his studies in their line. But the interesting thing is that, while he did not confine himself to his professional reading, he did read all he read with so much system, and was never desultory in his habit of thought or in his habit of work. All this gossiping essay-writing, ornamental if you please, or amusing if you please, is the ornament of a building which has very solid foundations.

Is it not quite clear also that his work will stand because he had, for the greater part of his life, something besides literature to attend to? A fencing master is one thing, a drill master is one thing, a professor of strategy is one thing, and General Grant or General Von Moltke is quite another thing.



DR. OLIVER WENDELL HOLMES.

A man of letters who is nothing but a man of letters knows how to describe a battle, or a railway collision, or the struggle in the heart of a maiden,—but woe to the man of letters, and worse woe to his readers, if he have nothing to describe! It is bad for you and me who have to read if, when we cut the leaves, we find nothing but an account of what somebody else has observed, or perhaps even at the third or fourth remove, an account of what somebody has said that somebody else has noticed that somebody else has observed.

It is a good thing for us, and for all Dr. Holmes' readers, that he had his own life to live, his own students to meet, his own lectures to deliver, and to keep in the very front of the science of his time in his studies of anatomy. No, he does not bore you and me with reference to those studies. We can read a poem, or perhaps a volume, without guessing how he was occupying the working hours of working days of working years. But all the same, you and I have the writing of a man who knows life. He has studied

it from more than one point of view. He has seen all sorts and conditions of men. He has spoken in more languages than one. All of which he has stated himself better than I can say it. It is interesting to have an object-lesson regarding it in his own life, and to see for ourselves that he, "the head of our academy," the man of letters who had the respect and love of every other man of letters, was the leading man of letters because he was a man of affairs, energetically and enthusiastically engaged in the daily duty wholly outside of literature.

A WRITER WITH A PURPOSE.

The serious purpose is hardly hidden beneath the light-hearted play of any of Holmes' stories or biographies or essays. I told him once that an oversensitive reader had taken the fancy that his description of a "possession" in *Elsie Venner* was so true that she who read felt in danger that she was thus controlled by a master mind, as, indeed, the hypnotists would perhaps teach us. Holmes was very grave when I said this. Often, indeed, he was the gravest of men. He said that he wrote the book merely as a psychological romance, with the eager wish to expose the folly and wickedness of the doctrine of transmitted sin. For this purpose he invented, wholly, what he called the psychological imagination of *Elsie Venner's* possession by another's will. He did not believe, and he had not supposed that any one would think he did, that such possession is possible. He was eager to say to me that he had no idea that one person can so control another. He was surprised that any one fancied that he thought so. But, on the other hand, his wish was to show that sin cannot be inherited. Sin must come from the will of the sinner. It must be a conscious act and purpose of his own. He was eager that I should say to any one that he never supposed such a case as *Elsie Venner's* really possible.

All which I copy from a note I made at the time by way of showing how eager he was to enforce some essential truth in what he wrote. Wisdom or joke, fun or retrospect, there is a purpose behind it all. And, as I meet the young people of to-day, and as I look round on the men and women whose writings they like to read, I see no one left whose serious purpose seems to me to affect them as did his.

LEADING ARTICLES OF THE MONTH.

MR. BRYAN, THE DEMOCRATS, AND THE TARIFF.

IN view of Mr. Bryan's position of leadership in the Democratic party, the utterances of his paper, the *Commoner*, are especially significant. Certain of Mr. Bryan's fellow Democrats, who are now in the Senate, have been disposed to call in question his right to speak as the exponent of unalloyed Democracy in the tariff discussion, but this has not deterred him from criticising with entire freedom their votes on the lumber and iron schedules. In the *Commoner*, of June 4, Mr. Bryan declared that those Democrats who voted against free lumber had

Voted to repudiate the national platform of the Democratic party;

Voted to encourage the destruction of our forests;

Voted to raise the price of one of the chief necessities of life;

Voted to tax a material that enters into a multitude of industries, and thus to place an unnecessary burden upon these industries;

Voted to tax the people of the whole country for the benefit of a comparatively few owners of timber lands; and

Voted to tax a majority of their own constituents for the benefit of a minority of those constituents.

To cast such a vote, says Mr. Bryan, a Democrat must have arguments that have not yet been given to the public and must be prepared to present these arguments to his constituents. He, therefore, offers to give space in the *Commoner* to any Democratic Senator or member of Congress who desires to present an argument in favor of a duty on lumber, provided he will in his article answer the following questions:

First, is a platform binding?

Second, is it wise to encourage the devastation of our forests?

Third, will the country as a whole be benefited by a tariff on lumber, and if so, how?

Fourth, how many of his constituents produce lumber as compared with the number of his constituents who use lumber?

Fifth, will he give the names of the men who have by letter or in person urged him to vote for the tariff on lumber?

The *Commoner* also invites brief letters from constituents who either approve of or condemn

the votes cast by their Democratic Senators or Congressmen. The *Commoner* believes that the Democratic Senators and members of Congress who voted against free lumber have greatly embarrassed the Democratic party, greatly strengthened the Republican party, and grievously wronged their constituents. But it is the desire of the *Commoner* to do justice to all, and it thus offers space to both sides, that the readers may judge for themselves after reading the arguments presented.

Mr. Bryan then quotes from the Democratic platform adopted by unanimous vote at Denver one year ago, as follows:

We welcome the belated promise of tariff reform now offered by the Republican party as a tardy recognition of the righteousness of the Democratic position on this question. But the people cannot safely intrust the execution of this important work to a party which is so deeply obligated to the highly protected interests as is the Republican party. We call attention to the significant fact that the promised relief is postponed until after the coming election,—an election to succeed in which the Republican party must have that same support from the beneficiaries of the high protective tariff as it has always heretofore received from them; and to the further fact that during years of uninterrupted power no action whatever has been taken by the Republican Congress to correct the admittedly existing tariff iniquities.

We favor immediate revision of the tariff by the reduction of import duties. Articles entering into competition with trust-controlled products should be placed upon the free list; material reductions should be made in the tariff upon the necessities of life, especially upon articles competing with such American manufactures as are sold abroad more cheaply than at home, and gradual reductions should be made in such other schedules as may be necessary to restore the tariff to a revenue basis.

Existing duties have given the manufacturers of paper a shelter behind which they have organized combinations to raise the price of pulp and of paper, thus imposing a tax upon the spread of knowledge. We demand the immediate repeal of the tariff on wood pulp, print paper, lumber, timber, and logs, and that these articles be placed upon the free list.

The editor of the *Commoner* invites attention particularly to the last sentence of the last paragraph of the tariff plank as adopted at Denver.

No language could be more clear; no platform

promise could be more explicit. If the Democratic party is committed to anything, it is committed to the repeal of the tariff on wood pulp, print paper, lumber, timber, and logs.

In the tariff contest in Congress a number of Democrats in the Senate and House have voted for tariff on lumber, and have attempted to defend their action in so doing. Two questions are involved, and the Democratic party must be prepared to meet these questions and answer them to the satisfaction of the country.

First, is a platform promise binding? We are now charging that the Republican party is guilty of breach of promise in not revising the tariff downward. But how can the Democrats criticise the Republicans for construing the word "revise" to mean an increase in the tariff if Democratic Senators and Congressmen deliberately repudiate a plain and unmistakable promise of free lumber? The Democrats who voted against free lumber will, of course, be called upon to defend themselves, and to do so they must deny that national platforms are binding, or they must insist that the national platform was not binding upon them. If they say that platforms are not binding, they attack a well settled Democratic doctrine,—namely, that the voters can instruct their representatives. A platform that is not binding is worse than no platform at all, because it misleads the voters. It is better for a party to make no promises than to make a promise and then break it.

If those Democrats who have opposed free lumber opposed it on the ground that, while platforms are generally binding, this platform was not binding upon them, it is incumbent upon them to show either that they were elected before this platform was adopted, or that in their campaign they openly repudiated the platform and gave notice of their adherence to a different doctrine. Even the Senators elected before the platform was adopted might feel justified in giving some consideration to a platform endorsed by so large a vote at the polls. The Democrat who sets his judgment up against the

declarations of his party assumes the burden of proof to establish the righteousness of his own position and the error in the position taken by his party.

Aside from having to meet the question of platform, the anti-free-lumber Democrats will have to be prepared to defend their votes upon the merits of the question. Will they insist that as a national proposition a tariff on lumber is desirable? Or will they defend their action on the ground that they speak for the interests of their States or districts? Even if they attempt to justify a tariff on lumber as a national proposition, and without regard to local interests, it will probably be found that the national argument only has weight with those who represent constituencies where there is a local sentiment in favor of a tariff on lumber, and the public will doubtless weigh the local interest in deciding upon the motive of the Senator or Congressman in voting against free lumber.

There is nothing more necessary to the welfare of all the people than lumber, and it ought to be as cheap as possible. To put a tariff on lumber is like putting a tax on salt, and the salt tax has ever been considered a hardship, and it has always been resorted to by despots, for no one can escape such a tax.

Lumber is not only a necessity, but it is a vanishing product, and a tariff upon it simply stimulates further destruction. If there is any one product that ought to go on the free list it is lumber.

Not only is lumber one of the necessities of life,—not only do our timber lands need such protection as can be furnished them by the free importation of lumber,—but a tax on lumber imposes a heavy burden upon all the people for the benefit of a very small percentage of the people. What proportion of the American people can possibly be benefited by a tariff on lumber? The percentage is exceedingly small. Even in the States where there are lumber interests the majority of the people are buyers of lumber rather than producers.

SOME FALLACIES OF AMERICAN SOCIALISM.

ONE of the chief perplexities of the student of Socialism is the number of different definitions of the term, and the varying platforms adopted by the Socialists of different countries at different times. Economists, represented by John Stuart Mill, held that Socialism connoted "the joint ownership by all the members of the community of the instruments and means of production, which carries with it the consequence that the division of all the produce among the body of owners must be a public act performed according to rules laid down by the community." According to Schaeffle, "the Alpha and Omega of Socialism is the transformation of private and competing capital into a united and collective capital." The

International Workingmen's Association, formed in London in 1864, issued a declaration of principles, written by Karl Marx, which contained the following passages:

The emancipation of the working-class must be accomplished by the working-class itself. . . . the struggle for this emancipation does not signify a struggle for class privileges and monopolies, but for equal rights and duties and for the abolition of class rule. . . .

The economic emancipation of the working-class is the great end to which every political movement must be subordinated as a simple auxiliary. . . .

Now the leaders of the American Socialist party recommend as a text-book a work ("Modern Socialism," by Charles H. Vail) which contains these declarations: f

The struggle for mastery is necessarily a class struggle, a struggle between the proprietary and the non-proprietary class. . . . Nothing is so important as to keep clear the class character of the movement. When a laborer realizes that he can only permanently improve his condition by improving the condition of his class . . . he is said to be class-conscious. When he becomes class-conscious he recognizes the class struggle and takes his stand with the class of which he is a member. A recognition of this fact of class antagonisms on the part of the whole working-class, and a united political action would enable them to master the public powers and put an end to capitalistic exploitation.

In the *Quarterly Journal of Economics* for May Mr. John Martin analyzes the two assumptions contained in the last-quoted statement,—(1) That society is divided into two classes, between which, "in the words of the New York State platform for 1907, 'there can be no common interest or harmony,'" and (2) that "united political action" must be taken by one of these classes which will "enable them to master the public powers" before society can expect to "put an end to capitalistic exploitation." As Mr. Martin shows, American society is divided not into two classes, but into scores of classes, divided by economic interest, sentiment, temperament, training.

The engineer receiving \$150 a month is separated as definitely from the Italian section-hand by a feeling of class pride and vested interest in his high pay as the president of the road is separated from the engineer. Engineer at \$150 a month and president at \$50,000 a year . . . would refuse to strike to aid the other, and both have a "class-consciousness" that excludes from their fellowship the section-hand quite as much as the capitalist stockholder. . . . The white carpenter or bricklayer shows more class prejudice against the negro teamster than the Jewish banker against his compatriot tailor. The shop-girl feels herself as superior to the domestic servant as the servant's mistress feels herself superior to the shop-girl . . . Trade-union presidents accompany newspaper proprietors before congressional committees to seek the destruction of the paper trust, while employees of the trust are eager for its continuance. . . .

The believers in the class war claim that "all these antagonisms are based on a delusion"; they maintain:

The warring elements are ignorant of the scientific basis of capitalist society, and we expect to convince them that in reality every man belongs to one of two camps, the camp of the propertied or the camp of the property-less. We shall unite the property-less into one army, with one common purpose animated by one common impulse, the overthrow of the ever-diminishing but powerful army of capitalists.

In making this prediction, however, one important fact is overlooked,—namely, that many citizens "have interests in the two armies both as exploiters and as workers." Moreover, it "is hardly possible to wipe out the class prejudices depending on race, color, occupation, and sentiment." To quote Mr. Martin further:

An increasing number of Americans own some property,—very little perhaps, but enough to give them an interest as small capitalists. Farmers own their homesteads, wage-earners have money in the savings-banks, foremen and superintendents hold stock, a million people own railroad bonds and shares. . . . Around every big city the long streets of spacious houses are occupied by professional men and salaried employees who possibly produce for their employers more than they are paid, but who in turn keep servants, engage wage-earners, and are eager for dividends on their scattered investments. It is idle to argue that these classes are doomed to extinction, that the march of events will in some distant day force them wholly among the propertied or wholly among the property-less. They show a stubborn vitality; they increase in numbers yearly.

With regard to the second assumption, that social reconstruction depends upon the formation of a Socialist party entirely independent of all other parties, and "declining electoral alliance under any conditions with any other parties, the first step must be political union of the farmers and wage-workers for the purpose of electing their class into power." In joining the party "one must forswear the right of private judgment as to electoral tickets and renounce independence in politics." The history of political and social reforms in America shows that the system of separatist political action is unlikely to be fruitful, even if it is possible. The anti-slavery movement is a case in point. Further, there is this to be considered:

This method of political action assumes that the negro cotton picker in Louisiana, the Polish coal-miner in Pennsylvania, the French-Canadian cotton-spinner in Massachusetts, and the Italian section-hand in Dakota have interests so identical with the interests of the Irish bricklayer in New York, the Yankee printers, machinists, carpenters, and plumbers all over the country, and the farmers of the West and Middle West, that, inspired by a class fervor they will all join hands, and, sinking the various differences about color, customs, skill, and wages, they will unite in one political party and, invincible by their numbers, will fight their Armageddon against their sole enemy, the capitalist class. . . . The victorious proletariat will straightway establish a socialized commonwealth.

A further reason for doubting the possibility of forming a single party such as that proposed by the Socialists is "that in the dif-

ferent States political conditions are as various as the physical climate. . . . No more can uniform lines of political action be laid down than they could for England, France, Spain, Italy, and Russia." Mr. Martin advances many other arguments against the probability of success in the establishment of an isolated and despotic party; and, in summing up, says: "The doctrine of

the class war is untrue to many of the facts," and, if it were true, "it would be irrelevant to the main issue which Socialists raise, the establishment of a co-operative commonwealth; and insistence upon it distracts attention from the only method of social reconstruction possible, while raising hopes of a furious transformation which, in the nature of the case, cannot be fulfilled."

A FRENCH WRITER ON THE "SOCIAL ENGINEER" IN AMERICA.

OLD-WORLD visitors to American manufacturing factories are wont to express their surprise at the extreme care bestowed upon the perfection of machines, even to the minutest detail. They are astonished at the readiness with which an entirely new tool or machine is cast aside when another is invented a little more powerful or a little more precise. It is in this same country, writes M. Georges Benoit-Lévy, in *La Revue* for May 1, that "manufacturers have discovered that it is to their interest to perfect a mechanism the most precious of all, at the same time the most delicate, the most difficult to manage, and the most fragile to be found,—the human machine." M. Benoit-Lévy, it should be mentioned, is the general secretary of the Association des Cités-Jardins, which has for its objects the creation of garden-cities, the beautification of city life, and the betterment of industrial conditions, and whose headquarters are in Paris. He says he has been struck with the care and consideration with which American work-people were treated in the model establishments which he has visited. This care and this consideration proceed, he opines, rarely, if ever, from a sentiment of philanthropy, but serve to demonstrate the truth of a very practical maxim: "It pays to do good." By way of illustration, M. Benoit-Lévy relates two incidents in a model factory at Dayton, Ohio:

One day the president of this establishment saw one of his workwomen warming her meager noonday pittance on a radiator. "A girl who eats under such conditions cannot work well," he said to himself. "She will think more of her stomach than of her task. Will it not be cheaper for me to install low-priced restaurants?"

Another day he noticed that certain female operatives were poorly provided as regards seating accommodation, or were without seats

altogether. Orders were given that all the workwomen be provided with seats, the fact being palpable that moments lost in complaining of fatigue might profitably be devoted to work. Also, elevators were installed for the young girls employed on the sixth floor, in order to save the ten minutes which they habitually took to recover their breath when mounting the stairs; sanitary lavatories and bathrooms were constructed, courses of physical culture were instituted, together with lessons in hygiene,—in short there was created a center of recreation, on the theory that healthful distractions tend to divert the mind of the operative from grievances real or imaginary, social revolt, etc.

One is tempted to ask, says M. Benoit-Lévy, who is the head of all this social organization. Not the proprietor; for he is too much occupied with the general direction of his business and with the hundred and one questions on which he is constantly consulted. Not the superintendent; for his duties are defined, and they fully occupy all his time. Not the foremen; for they are notoriously incapable; and even with their exceptional opportunities it would be dangerous to impose upon them such a task. He continues:

In reality, new wants have created a new function,—that of the social engineer: a man who has made a study of the social life of the workshop, and on whom devolves the care of transforming the human machines confided to him into instruments of a precision equaling that of the machines created from their various parts by his confrères the constructive engineers.

The social engineer is not a philanthropist, nor a Cerberus, nor a philosopher. "Philanthropy has no place in business." So far from being a spy, the social engineer is "the friend of both the operative and the employer; and by his beneficent offices he helps to maintain friendly relations between them." He is no theorist; for "his profes-

sion cannot be learned at the university. It is by the study of social phenomena at their sources, by the observation of industrial conditions, by comparing the industrial life of workmen of different countries, that the social engineer acquires that knowledge which is indispensable to a satisfactory discharge of his duties." M. Benoit-Lévy succinctly describes him as "a person who has made a practical study of social peace in the workshop, of social hygiene in the city, and of sanitation in the home."

The field of activity of a social engineer is immense:

Recourse is had to him for the installation in or about the factory or works of economical restaurants, bath-houses, gymnasia, playgrounds, libraries, co-operative societies, literary and musical associations, and healthy and cheap lodgings.

The social engineer is not a permanent official; his advice is solicited, and he retires when his mission is accomplished. An auxiliary to follow him is needed; and this auxiliary is the social secretary. The latter is attached to the establishment; and he or she carries out the instructions of the social engineer. One such secretary supplied M. Benoit-Lévy with the following notes of her occupations during the first week of her engagement:

Monday.—Collected the sums saved by the workwomen for deposit in the bank, after which I held a consultation with their mothers. Prevented one young woman from leaving the factory by explaining the real significance of a medical order which she had misinterpreted.

Tuesday.—Gave a lesson in hygiene. Made peace between two workwomen who had quarreled.

Wednesday.—Noticed at breakfast-time that one of the girls could not eat owing to derangement of the stomach. Advised her to take milk instead of meat. Summoning her to my office, I there showed her a photograph of the Venus of Milo and one of a woman corseted in the modern fashion. Then placed before her a book on physiology, showing the depression of the stomach frequently caused by wearing corsets.

Thursday.—Advised those who consulted me as to their choice in reading. Gave lessons in sewing.

Friday.—Examined the applications for employment; changed the work of one young girl who seemed better suited to another department.

Saturday.—Inquired into the case of a girl who complained that she was obliged to live in a boarding-house. Decided to give her railway tickets, in order that she might go to her home each night. Accompanied to the depot three workwomen and two workmen who have been ordered to our convalescent home.

Most of our readers will, we think, agree with M. Benoit-Lévy that both employers and employees have much to gain from these two offices.

LABOR TROUBLES IN FRANCE.

IT can scarcely be said of the labor question that it is one of the things "they manage better in France." In truth the French seem to have been having a pretty strenuous time. One writer,—Mr. Alexander Ular, in the *Contemporary Review* for June,—goes so far as to say that "in France the relations between capital and labor, between organized employers and organized wage-earners, between organized authority under the control of the former, and organized emancipation striven for by the latter,—in a word, between the State and proletarian associations,—have reached an acute stage unknown in any other country of the world." Actually, the labor problem has resolved itself into "an assault on the present parliamentary system." The crisis which has been reached is due to the fact that "the case of 'syndicalism' against capital has become the case of the wage-earners against the modern principles of the State."

Syndicalism is not to be confounded with British or American trade-unionism. Mr. Ular, in giving a brief history of it, says:

When, twenty-five years ago, a special law ratified the existence of wage-earners' associations, the latter were expressly forbidden to deal with any matter exceeding the limits of mere professional questions. They got the right to organize strikes (on condition of respecting the right of strike-breaking) and to collect regular contributions. But they were deprived of "juridical personality,"—that is to say, they have no collective liability, no right to possess collective property, to bring lawsuits, to be prosecuted, to start commercial or industrial enterprises,—in a word, to act as business contractors. Their influence was to be confined to labor questions, and to be exerted by moral force. During some twelve or fifteen years they acted more or less like the English trade unions. But even during this "economic" period they could not escape from political struggle. Their natural aim being improvement of the general situation of the working classes, they became at once nuclei of Socialist propaganda.



THE ULTIMATE FATE OF THE FRENCH PUBLIC.

(Even the cab horses will soon go on strike. Such at least is the prediction of the cartoonist of *Kladradatsch*, Berlin.)

But the character of the syndicates changed by and by, when the Dreyfus case upset the whole political structure of the country. The democratic parties of the middle classes, the so-called Radicals, were unable to overthrow the clerical and military parties without appealing for assistance to the Socialists. The large crowds of workmen were alone strong enough to keep at bay the anti-Semite and clerical gangs and the Nationalist leaders who plotted against the Republican system. As a matter of fact, the Republic was saved that time by the workers. Their representatives in Parliament secured a very important position. And although the principles of Socialism did not allow them to take office, unless they "betrayed" their constituents and left the party, their advice was paramount in general politics for about five years. The three great reforms due to the Radical system,—the law on associations involving the dissolution of monastic orders and the suppression of religious education, the separation of the churches from the state, and the repurchase of part of the railroads by the state,—as well as the two great reforms still pending before the Senate, old-age pensions and the income tax,—were inspired by, and could be carried only with the help of, the Socialists.

Meanwhile, the syndicates increased in power; but they were disappointed in finding that, in spite of their large political influence, their professional and social claims were not kindly considered. As soon as the

anti-clerical reforms had been carried out, "there was a sudden stay in legislation, the social reforms on the Radical program were not pushed on, and the men and parties in office contented themselves with making material profit out of their moral power." Hitherto the syndicates had not contemplated seriously the "possibility of securing decisive reforms by way of revolutionary proceedings"; but by and by the idea was propagated that "a general strike would be able to overthrow the present social system in case the pre-parliamentary régime should fail to improve the situation of the working classes."

When the Socialist party failed to represent the interests of the proletarian class against the political and social sway of capitalism, the syndicates reorganized their forces. The small local syndicates united in large "industrial federations"; and all of the latter "joined in a general central organ called the *Confédération Générale du Travail*, usually abbreviated *C. G. T.* Though there is no doubt that the government has legally the power to dissolve this body, "the *C. G. T.* is so strong that no government and no majority in Parliament dares to do so." Its influence on the political affairs of the country is "great enough to inspire the fear of revolution." The material position of the officials of the *C. G. T.* is unpretending, so that they have no personal interest in avoiding conflicts with the state. In most of the federations the active leaders devote themselves to propaganda, and "are likely to have prepared for co-operation in case of political troubles large crowds of people not yet enlisted in the syndicates." There is evidence that the army and the employees of the posts, telegraphs, and railroads have been affected by syndicate propaganda; and future strikes will, it is confidently expected, have different endings from those of recent months. To quote Mr. Ular:

The present course of events, however, seems to indicate that, instead of being the collaborators of public administration, the state employees will become the collaborators of social revolution by joining, or at least by co-operating on the same lines with, the labor federations. If the parties in office prove unable or unwilling to prevent the joining of these two immense forces by an open reconciliation with the state employees, the general social situation will rapidly grow worse. Solidarity and mutual aid between workmen and officials will prevail, and it will be impossible to content one group without complying with the claims of the other.

"PACIFYING" RUSSIA IN THE OLD WAY.

"THE government of constitutional Russia has not adopted any other measures than those invented by the old régime, because it has not moved away from the view-point of the latter. All the cultural interests of the people have been left subordinated to the interests of the so-called safety of the empire, and now, as then, all the threads of the governmental apparatus are centered in the almighty Ministry of the Interior."

In these words a writer, Dr. S. Kotlyarevski, in the Moscow weekly, *Moskovski Yezhenedyelnik*, characterizes the present period in the Empire of the Czar. Continuing, he says:

The program of pacification, which the government promised after the dissolution of the first Duma, has obviously been fulfilled. Every impartial observer must admit that we have no more political strikes, armed revolts, or agrarian disorders. Robberies and murders, to be sure, still occur, but not from political motives. The same observer will, however, acknowledge that if the malady has superficially disappeared the causes which had given birth to it remained unchanged; that the attitude shown in the years 1905-'06 has not been suppressed, and that all the fundamental needs of the people have remained unsatisfied. Can we, therefore, speak, under such circumstances, of pacification? Yes, indeed, if we take it in the sense that the government has understood it. But the latter has undertaken to struggle merely with the symptoms.

The writer continues to show that the everlasting setting off of this "safety of the

empire" against civil liberty and cultural interests is "propitious to a purely anarchistic attitude and anarchistic ideas."

Russian society has always felt that the government is the enemy of the people, not the guardian of its rights and of national culture. Russia is pacified, but the horizon is darkened by an impenetrable mist, and the future is unveiled before us only through the presentiment of new calamities. The unsettled economic forces and the pressing cultural problems are growing more and more troublesome. It appears as if we were turning around in an enchanted circle, where everything is tied down and where the triple load of lawlessness, ignorance, and poverty drags the enfeebled country to the bottom. As to the foreign situation, the recent occurrences have laid it bare even to the blindfolded. The balance of the world was deeply shaken, first of all because the weight of Russia had extremely lightened in the international scales.

The greatest crime in the present tactics of pacification, concludes the editorial, consists in the fact that the national organism is treated as "a passive mass which can be molded arbitrarily into any shape whatever."

The government does not believe, and perhaps is not able to believe, that a healthy society can itself work out means to counteract decomposing anarchical influences. . . . The deepest motives of the fatal tactics of the government seem to be that it does not believe in the real and lasting vital powers of the people, but in the relative and transient forms of its social and political life. How soon shall we feel the dead point crossed and the stream of Russian life pour into the new channel?

PEACE—ON A WAR FOUNDATION.

IN our March issue we printed an article with the suggestive title "Armies, the Real Peace Promoters." In the June number of the *Open Court* (Chicago) the editor of that journal, Dr. Carus, also puts forth the view that peace, to be solid, must rest on a war foundation. Exposing the weakness of the arguments of the peace-at-any-price advocates, he says:

It is truly a noble task to appear as a peacemaker in this world of quarrels, but woe to the peacemaker who steps in like a sheep between the lion and the tiger, or to the gosling who interferes with the hawk and the eagle. No one has a right to appear as a peacemaker except he be a man of power. To bring peace on earth is a great ideal, but in order to deserve it we

must acquire the strength to perform the grand office. . . .

No nation will be minded unless she has the power to make good her demands.

Referring to the second National Peace Congress, held at Chicago in May last, Dr. Carus remarks that "the general tone of the speeches was denunciatory of war, of its preparations, and of all that belongs to war." President Taft sent a letter in which was the paragraph: "The policy of the United States in avoiding war under all circumstances except those plainly inconsistent with honor and its highest welfare has been made so clear to the world as hardly to need statement at my hands." No one, says Dr. Carus, could

find fault with any peacemaker who bore in mind this exception; but "the spirit of the Peace Congress tended in another direction. It denounced all war, and proposed peace at any price." President David Starr Jordan reminded the Congress that Rome perished for want of men who could fight. "The main cause of her downfall," says Dr. Carus, "was exactly that state of things which our men of peace want to bring about. The Romans had become a peaceful nation and had forgotten how to fight."

Many a true word is spoken in jest; and Dr. Carus cites from a pamphlet distributed at the meeting, from the pen of Dr. Charles E. Jefferson, of New York City, in which that writer ridicules, in very sarcastic language, the men of peace who do not favor disarmament:

If you ask this new peacemaker how war can be escaped, his reply is, "Only by colossal armies and gigantic navies." Lyddite shells and twelve-inch guns are the only guarantees of peace. Nations not cased in armor inevitably fly at one another's throats, but when dressed in steel plate they coo like doves. Every battleship, therefore, is a nail in the coffin of war. Twenty-six-thousand-ton battleships are spikes; and no spike is too long when you are trying to box up the devil. Cruisers and torpedo-boats are messengers of good-will. A naval cruise cements nations together wonderfully. . . . The President, when he asks for new battleships, is aglow with enthusiasm for peace. Every Congressman who votes additional millions for cruisers and torpedoes does so in the conviction that in this way he is sounding the death-knell of war.

One of the peacemakers thus denounced was Gen. Frederick D. Grant, who, in the course of his address, said:

I believe it behooves the people of this country to maintain their army and their navy in an efficient condition; and I believe that 12-inch guns along the coast of the Atlantic and the Pacific, with a well-drilled body of men in this country, will do far more toward maintaining peace than all the talk that all the good people of all the countries of the world could do in times that are not strenuous. . . .

Dr. Carus says of this address that what the General said "was so sensible that it would be difficult to upset his statements."

The peace-at-any-price advocates are wont to take credit for the fact that wars are now less frequent than in former centuries; but, as Dr. Carus says, this is not due to the propaganda of peace congresses, but "because both statesmanship and war are now conducted with method and have become sciences."

The condition of civic peace in our large

centers of population is due solely to the circumstance that the cities have the means to enforce order at any moment. There is an enormous resource of reserve power which is never utilized, but "whose very existence insures peace and order. . . . The same is true of international safety. There are no pirates now on the high seas because they could not live in the presence of modern war-ships."

Perhaps the most potent factor tending to abolish war is its cost.

War is daily becoming more expensive. In the ages of club law war was comparatively cheap. Every baron or robber knight could start a feud without any more risk than the bones of his retainers. . . . But nowadays the mere mobilization of an army devours millions and millions of dollars daily, not to speak of the incalculable losses caused by the interruption of commerce and trade. War has grown less because the great powers cannot afford to go to war, and they gladly welcome the opportunity of arbitration.

Another important step in the abolition of war is in the augmentation of the rights of neutrals. But "there is only one way for neutrals to assert themselves: they must compel, by military and naval forces, the beligerent powers to respect their rights."

Dr. Carus cites some misleading statements put forth by the Peace Congress, as, for example, that Switzerland, Belgium, Luxemburg, and Norway have been neutralized,— "a statement for which there is not the slightest authority." Also that organized labor is against militarism. This is true enough; "but organized labor itself is militant. If there were no militia in this country and no standing army, organized labor would have an easy time to dictate terms where it now clamors for arbitration."

For a nation to disarm or to wilfully weaken itself is to play the part of the lamb and to give itself over to the wolf. The highest ideal is the spread of good-will on earth; but it is worthless unless it is accompanied with manliness and strength, unless our good-will is backed by the determination to fight for, yea, even to give our lives for, our ideals. We must bear in mind Cromwell's words: "Trust in God and keep your powder dry."

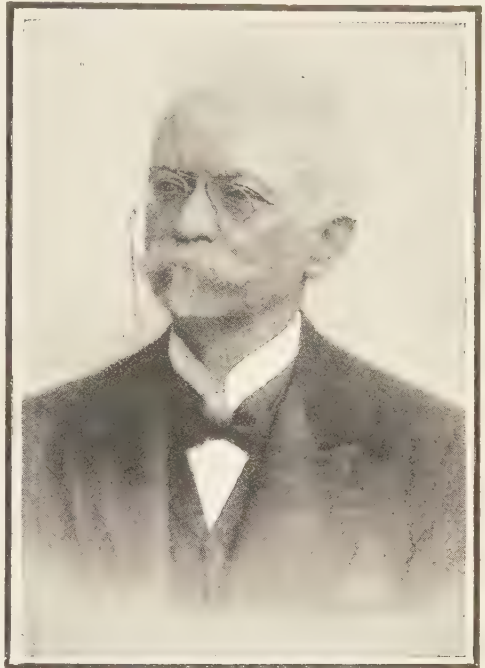
The last resolution passed by the Peace Congress demanded immediate disarmament and obligatory arbitration, but no provision was made in case some nation would not submit. "How," asks Dr. Carus, would an international Hague tribunal enforce its decision if the universal principle were adopted of peace at any price?

PARA—A TYPICAL EXAMPLE OF SOUTH AMERICAN PROGRESS.

THE people of the United States have become so familiar with remarkable instances of development in so many of their own cities that they are apt to forget that other countries of the New World are also "marching on." Ask the average American where Para is and he will probably say: "Para? Why that's where the rubber comes from." And this will be the extent of his knowledge on the subject of the inquiry. Yet this region is one of the oldest in the Western Hemisphere; and Major J. Orton Kerbey, formerly United States Consul at Para, writing in the *Bulletin of the International Union of the American Republics*, reports that "the State of Para is the third largest in the Republic of Brazil, comprising nearly one-seventh of it, one-thirteenth of South America, and being almost as great, therefore, as two Texases."

In speaking of Para it is necessary to distinguish between the State, the city, and the river of that name. More than a hundred years ago Humboldt declared: "The valley of the Amazon in the near future is bound to become a great center of civilization and the world's greatest storehouse." And that this future is certain is, in Major Kerbey's opinion, "quite evident to those who examine the factors in the case carefully." He describes some of these factors thus:

North of the Amazon the State possesses lands hardly explored by man, but worth the best efforts of the pioneer and settler. Here, bordering on the Guianas, is a rich tableland, said to have the finest climate in the world. It is away from the moisture of the river, high enough to escape the continued heat of the real tropics, rich in rubber and hard woods, and with a fertile soil capable of producing almost all the necessities of life. . . . South of the Amazon is a region better known historically and industrially, but still scarcely touched when its real agricultural capacity is considered. . . . Its natural riches have begun to be appreciated and developed. . . . A railroad has been built to the length of 165 miles toward the east; another is building for 112 miles to the southwest; and a third trunk line, westward to the heart of the continent, is projected. . . . This great region has at present a population of only 1,019,000, less than three to the square mile. . . . the State of Para will not be crowded when it has a productive people of 73,000,000. The crops that will grow on this land are those of the tropic and subtropic zone, in addition to the great staples of rubber and cacao, such as tobacco, cotton, coffee, sugar-cane,



THE LATE PRESIDENT PENNA, OF BRAZIL.

(Who initiated and at the time of his death was vigorously carrying out the policy of building up Para as a great port.)

rice, many cereals, and fruits. There are also immense plains where cattle can thrive. . . .

Para, the capital of the State, founded by the Portuguese in 1615, lies on the right bank of the River Para, "known also as the Guajara, which here broadens out into the Bay of Guajara before it adds its waters to the greater stream of the Amazon." Its official name is Santa Maria de Belém do Para, but is usually called by its shorter term, Belém, among the Brazilians. The development of this city was one of the "pet" schemes of the late President Penna, whose decease we have to chronicle this month.

Para lies about 86 miles from the Atlantic. "The commerce of over 40,000 miles of navigable waterways passes through the port." The immensity of the Amazon needs constant repetition to keep the facts well in mind.

For 1000 miles the least depth is 60 feet; and there is an average depth of 150 feet. The amount of water poured into the Atlantic is four times that from the Mississippi. . . . It is a modest comparison that the valley of the

Amazon is larger than that of the Mississippi between the Alleghanies and the Rocky mountains.

The port is "one of the busiest in the world."

The water alongside the present docks gives accommodation for vessels with a draught of 24 feet; but when the construction of the new harbor is completed a permanent depth of 30.3 feet will be secured. . . . To construct the port works a company has been organized under the laws of the State of Maine (United States) with a capital of \$17,500,000.

The three great products composing the exports from Para are rubber, cacao, and Brazilian nuts; but "many other indigenous

products are added to make the complete tonnage of the foreign commerce." In 1907 the exports from Para amounted to \$31,500,000 gold, while the imports amounted during the same year to \$10,650,000 gold.

Within the city there are similar evidences of rapid progress.

No longer ago than the period of our [the United States] Civil War Para was only a tropical trading post at the mouth of the Amazon. To-day it has a population of 200,000. . . . The streets are well kept and in good repair; electric cars reach all parts of the city and extend into the surrounding country. . . . Electric lighting is general throughout the city. There are telephones and telegraph lines, and a submarine cable to Europe via the Azores.

WHAT THE IDEAL PHYSICIAN SHOULD BE LIKE.

DOCTOR F. CATHELIN, an occasional lecturer in the schools of medicine in Paris, publishes a paper in the *Revue du Mois* (Paris), in which he depicts the modern physician, not as he exactly is, but as he would like him to be, as he himself says. He dwells upon the question of the suitability, in point of character and conscience, of any candidate for the honors of the medical doctorate, as being a crucial one for the public, and suggests that those responsible for the acceptance of students for the medical profession care little enough for what the doctor terms the personal harmonies of disposition, provided the candidate can "pull through" his examinations.

Doctor Cathelin maintains that no person who does not possess certain "six moral senses" should attempt to enter the medical profession. These senses are: The sense of duty, the sense of responsibility, the sense of kindness, the sense of manual skill (which he subdivides into the sense of boldness and the sense of prudence), the sense of beauty, and the social rôle.

The sense of duty toward the patient is the very first requisite in a doctor. This sense can only arise from a positive and innate altruism or love of one's fellow creature,—a quality similar to that which moves the hospital-nurse to devote her life to the care of the stricken. There can be no personal sensitiveness, nor lack of interest in details, as against an absorbing curiosity that complicated cases arouse. And yet, with all this sense of duty which calls for extreme goodness or sensitiveness of heart, he must not show a trace of emotion when his duty calls him to operate on a McKinley, a Carnot,

or a Frederick II. In the profession the word equality has certainly found a lasting place. No matter how far he may have gone in his profession, or how rich he may have become, if he possess this sense of duty in his heart, he will die an active member of his profession, unless old age prevents him working.

In the matter of responsibility a doctor must follow the traditional advice,—namely, to do as he ought to do, no matter what the issue. No doctor can be held responsible for results that are independent of his zeal, and to limit his action by undue legislation is to put a stop to scientific medical progress. As for the sense of kindness, it is certain that the age of the brutal surgeon has gone by. There may be occasions when it is desirable, on account of a surviving family, to tell a patient that his end is approaching. But in the generality of cases, to pretend to see recovery in a patient is often effective, and is always kind.

The proper sense of manual skill in a physician is founded on reflective audacity,—that is to say, an audacity born of a sincere wish to succeed, and of common-sense. Bold doctors are frequently characterized as innovators. It is incontestable, nevertheless, that many of these doctors prove the greatest. Boldness is frequently the difference between the clever and conscientious surgeon and the simple operator or dissector who has grown bold through indifference. And yet, the surgeon's "nerve" must always be kept in check by his prudence. That prudence must depend much on his intuition, without which a doctor is a public calamity. Judgment and correct intuition must be part of his equipment. His sense of beauty must really be a sense of the artistic, an anxiety to execute with neatness and celerity; without these no operations can be said to be correctly done, either from the point of view of medical science or from that of the patient. But, above all things, a doctor must be good in the sense of his possessing good moral qualifications. His social rôle, therefore, becomes of the greatest importance.

FIVE CENTURIES OF THE HOUSE OF ORANGE-NASSAU.

THE recent birth of an heir to the throne of Holland makes the following résumé of the reigns of the ancient House of Orange-Nassau of special and timely interest. We condense it from an article in the Dutch Review, *Onze Eeuw* (Haarlem), by the eminent historian Prof. P. J. Blok.

It is now nearly 500 years ago since the princely families of Orange and Nassau became intimately associated with the Netherlands.

The princes of Orange, relatives and vassals of the Dukes of Burgundy, accompanied the latter into the Low Countries about the year 1400, and at nearly the same time the Counts of Nassau had transplanted a scion of their own ancient race in Brabant and Holland, likewise in the relation of vassal of the Burgundian princes, who gradually united all the Netherlands provinces under their dominion. From the days of Philip the Bold to those of Philip II., "the tyrant from Spain," the members of both families served the House of Burgundy in positions of great trust and honor, both military and civil. Then, upon the extinction of the male line of Châlons and the marriage of its last female descendant with Henry of Nassau, the two houses were united and Henry's son René became heir to the title and rights of Châlons and adopted the proud motto, "Je maintiendrai Châlons." It was his nephew,

William of Orange-Nassau, who, in 1544, with the full consent of the Emperor Charles V., entered upon the inheritance and made René's motto his own, rendering it still more famous by applying it to the maintenance of the rights and liberties of the people whose cause he had espoused. Under him the relation between the House of Orange and the Netherlands became still more intimate and strong as he started them upon a career of fame and power. Without his extraordinary gifts of brain and heart Alva and Parma would have gained the victory and the Republic of the Seven Provinces would have perished still-born.

William the Silent, the father of the fatherland, also laid the foundation for the affection that so closely has bound the state to the family of Orange, the House ever ready to sacrifice possessions and life in order to secure liberty for the nation; and that raised the Netherlands to the position which, about the middle of the 17th century, made the little republic one of the great powers of Europe. For not only William the Silent, but his sons, Maurits and Frederic Henry, and even his unfortunate oldest son, Philip William, his daughters, and his kindred of the House of Nassau, at that time so fecund,—all shared in the struggles and sufferings endured during the fearful con-



William the Silent, Founder of the House.

Prince Maurits, who fought the Spaniards.

Prince William, who became King of England.



QUEEN WILHELMINA AND THE LITTLE PRINCESS JULIANA.

(From a snapshot taken by the Prince Consort.)

test with the mighty world power of Spain. The history of the world furnishes few heroes and statesmen equal to them.

If the more passionate Maurits, in one lamentable instance, the beheading of the older Barneveldt, seemed guilty of injustice, the gentler Frederic ceased not in his endeavors to remedy whatever wrong and injustice might have been done, and brought about a reconciliation between the opposing parties, whose mutual embitterment had threatened to divide the nation hopelessly. Frederic's only son, William II., the fourth Stadtholder of the Republic, who seemed to have inherited all the civic and military virtues of his great predecessors, passed away before his twenty-fifth year, leaving behind a still unborn son, the future William III., and his country rent by party strife. But in those darkest days which the House of Orange had yet experienced the people did not for a moment forget "the little prince," and again and again the cry went up: "Yet shall he be our Stadtholder!" in spite of the State party which had become bitterly hostile to the ancient house. And when, in 1672, the terrible crisis came, the nation found a deliverer from the power of Louis XIV. in William III. at the same time that he became the champion of liberty also for England. But William III. died childless, and the young Frisian Prince of Nassau, John William Friso, to whom the right to the name of Orange was disputed, succeeded to the Stadtholdership. But he was removed in the flower of his manhood, though at Malplaquet, one of the fiercest battles ever fought on Belgian soil, he had shown himself a worthy heir of the military prowess of his renowned fathers.

Nearly half a century after the death of William III. the cry, "Long live Orange!" was raised once more, and now in favor of

William IV. To him greater powers were granted than to any of his predecessors.

But after four short years death took from him the burden which he had never been able to carry. With the accession of his son, William V., the hopes of the patriots were once more aroused; but, though, like his father, almost Sovereign Prince of the Netherlands, he also proved too weak for the task, so that instead of returning the affection of the patriots that party conceived a bitter hatred both for himself and the system of government he represented. The fourth war with England threatened to end with the deposition of the Prince when his authority as Stadtholder was restored by Prussian bayonets. The name of Orange became once more a party cry till, in January, 1795, it was put under the ban of the people, the Prince and his house fled the country, and the unhappy period arrived of the French domination, followed by the utter loss of the national independence.

With the fall of the House of Orange fortune seemed utterly to have deserted the nation, nor could the House itself thrive outside the Netherlands, and the separation of the two seemed likely to be perpetual.

A restoration of the House, proposed during the period of the so-called Batavian Republic,



KING WILLIAM III. OF HOLLAND, FATHER OF THE PRESENT QUEEN.

was prevented by Napoleon I. The only son of the expatriated Prince accepted compensation as ruler of the principality of Fulda, and there became one of the strongest opponents of the universal usurper. When fortune turned its back also upon Napoleon, Prince William, supported by his noble mother, Wilhelmina of Prussia, at once entered into relations with the powers for the liberation of the Dutch provinces from the French yoke. But even before the powers took action, Hogendorp and his followers had already thrown off the yoke and recalled the Prince. He returned, but, instead of as Stadtholder, as he had anticipated, he was soon proclaimed King of the Netherlands, with the title William I. The battle of Waterloo, in which his eldest son showed himself worthy of the military fame of his fathers, confirmed William in his position. When in 1832 the separation between the Northern and Southern provinces was effected by the erection of the Kingdom of Belgium, William I., no longer the beloved Prince, abdicated in favor of his son, William II. And the latter, in 1848, yielding to the people's will, surrendered his almost absolute power and submitted to the limitation of his authority by the recently adopted constitution. When, after his death, in 1849, William III. came to the throne the Netherlands had a constitution that kept unworthy rulers under restraint without depriving a just King of proper influence in national affairs.

The House of Orange, which in 1848 was still so rich in princely progeny, lost one

after another its members of the male sex, so that thirty years afterwards King William stood well nigh alone. There was danger that in comparatively short time some one or other of the more or less distant foreign relatives, unacquainted with the country or the people, scarcely even known to the latter, might ascend the throne by right of inheritance, an occurrence that might easily have led to a general European war.

Then the old King married again, espousing Princess Emma of Waldeck, who soon won the hearts of the people, while at the birth of a daughter, Wilhelmina, a load of anxiety was removed from the nation's heart. At the death of the King, in 1890, his beloved daughter succeeded to the throne and, under the guidance of her wise and gentle mother, soon made the name of Orange as beloved as of old.

After Wilhelmina's marriage to the man of her choice, the hopes of the Dutch people for the perpetuation of the noble House of Orange was reawakened, only to be again and again disappointed, till fear for the future of the House and for the nation itself was once more aroused. This became so great that there was talk even of setting up a new republic. That fear vanished at the happy birth of the Princess Juliana.

ZEPPELIN'S "CONQUEST" OF THE AIR.

A LONG, descriptive article on his aeronautic experiences and ideas by Count Zeppelin appears in the *Pall Mall Magazine*. It is fully illustrated with pictures of the various Zeppelin airships at different stages of their flights.

Count Zeppelin has, naturally, no doubt as to the future of aerial navigation being with the big airship, and not with the aeroplane, though he does not deny that the latter "may be of great use within narrow limits." The first necessity for a long airship voyage is two independently working motors, each with its own propeller. There can never be a motor absolutely free from risk of failure, and the failure of an airship motor is obviously more dangerous than the stoppage of a locomotive engine, for instance. It is often argued that "Zeppelins" (the word is now used as denoting all large airships) cannot ascend to great altitudes like smaller and lighter ships. The real question, however, says the Count, is how far the ship can spare weight or ballast in relation to its original carrying capacity. And in the matter

of rising to great heights the large airship has always the advantage over the smaller ones.

The Count denies the statement made by certain newspapers that he proposes building an airship to carry a hundred passengers, "although such a monster is by no means beyond the resources of modern technical science." Airships running forty miles an hour, and covering 2000 miles in two days, or, traveling at a lower speed, 4000 miles in four and a half days, are in the already visible future. Navigation of the air, he insists, is more difficult than navigation of rivers or seas. For one reason, the aerial navigator has mountains to contend with, and at night, or during fog, he must steer his ship either high above or far from such dangers. Maps, however, are now available showing all such elevations. In crossing mountains it is wise to choose the lowest and broadest passes, and once airships cease to be a novelty aerial mountain traffic will have to be properly regulated.

Count Zeppelin has much to say of the air-



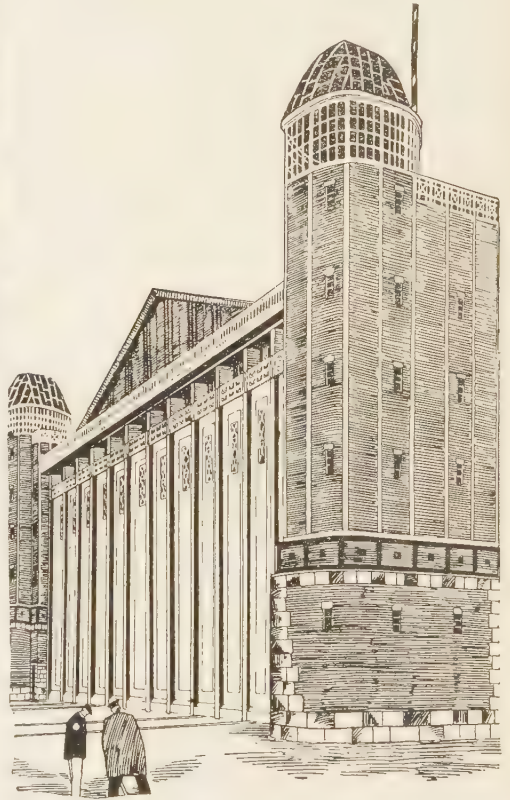
THE KAISER AND COUNT ZEPPELIN.

(From a photograph taken after the first successful flight of the Zeppelin airship.)

ship as the advance-agent of civilization, enabling man to open up hitherto little known and half-explored regions of the globe. In time, moreover, probably they will be able to make use of favorable winds. Meteorology has already made great progress in predicting the direction of winds, and the International Commission for Scientific Air Navigation, under its president, Professor Hergesell, of Strasburg, is trying to have more observation-stations established over the civilized world, while the director of another German meteorological station makes special observations for the use of airships. Knowledge of the prevailing winds at sea is still more important, although "the airships of the immediate future are not likely to adventure much more than seven hundred miles over the sea."

Speaking of the objection made to his airship on the ground of its costliness, the Count says that this has been much exaggerated, and that the cost is as nothing compared with the gain in opening up fresh territory or in war being able to inform the general

or admiral of hostile movements. Airship communication between Berlin and Copenhagen would already, he thinks, pay 10 per cent. on the capital invested. To prohibit international airship communication is impossible, he says, but "the effect of airships will rather be to create a bond of union between the nations" than to set them all against one another. Airshipping must in time be regulated by international treaty, and the points fixed from which the ships bound for foreign countries must start and those at which they must land. Air-navigators will also obtain from consuls proper ships' papers



THE PROPOSED GARAGE FOR ZEPPELIN AIRSHIPS.

(So convinced is Germany that the aeroplane and the dirigible balloon are to be used in wartime that she has planned a garage to be devoted to Zeppelin airships only.)

before starting, giving number of passengers, quantity of post, merchandise, etc., just as sea-going ships do now. The Count does not think that frontiers, passport systems, and customs regulations will disappear before the airship, but merely that it will call into existence a new and complicated set of international rules and regulations.

THE HUMAN BASIS OF THE ART OF ACTING.

JUST how far the stage is universal and, on the other hand, how far the expression of human emotion and passion is conditioned by race training, and national life, is discussed by the famous Italian actor Tommaso Salvini in a long, analytical article which appears in a recent number of the *Süddeutsche Monatshefte* (Munich). No matter how highly educated an audience may be, says Signor Salvini, it will "only with difficulty be seized in its innermost heart by a passion foreign to its mode of living." Elaborating this idea, the Italian artist continues:

The members of the audience may admire the idea, disposition, and thoughts and praise the execution, but they will only with the greatest difficulty succeed in feeling its living pulse. If, for instance, an Italian or a German sees a comedy, the subject-matter and characters of which bear a definite local French stamp, he may consider the manner of acting excellent, he may perhaps be surprised by the naturalness with which the actors perform their parts, or entranced by the elegance of the costumes, the clever manners, and the graceful, attractive forms of the actresses. As a foreigner, however, he will not properly feel himself at home. Everything will appear to him as forced and studied, and he will finally exclaim, "It is not true to life at all." If afterward he sees a French tragedy matters will become still worse. The abominable "Alexandrine" will torture his ear and deprive him of all illusion.

In general, according to Signor Salvini, French actors are true in the art of acting "only within a certain sphere; if that sphere is overstepped,—i. e., if a certain passion becomes dramatic, serious, and violent,—they assume a declamatory manner which we Italians consider as being in bad taste."

Of course, I concede exceptions. As far as we are concerned, we are, while in general not especially clever and effective in comedy, more true in drama and tragedy. The Germans are much more diligent than the actors of the Latin people. They penetrate much more deeply into the parts they play, and execute them exactly, but they lack the fire and grace of representation.

Englishmen, and women also, we are told, have the same excellent points and the same faults.

With them everything is form and accuracy in the representation of characters. They are extremely conscientious and exact in their delivery, well versed in everything that concerns decorations and costumes, but there is hardly found among them a vivid impulse, fire or spontaneity of artistic feeling. They have had great actors, as, for example, Garrick, Macready, Kemble, Edmund Kean, and finally

Irving. Such artists, however, have been satisfied to obtain the applause of a public that spoke the same language and had the same tendency of mind as themselves.

The proper investigators and pioneers of dramatic art, the Italian star maintains, are the Italians and the Frenchmen. To them has been given the honor to have been appreciated and to have gained applause in the whole civilized world, and, while using their own language, to have appeared together with actors that spoke another idiom. The North American actors, he believes, possess the excellencies of the European artists and a striving after natural representation.

If they would bestow more consideration to the study of parts and more care to their representation, as they already possess a clear, incisive diction, they would have the honor to belong to the first representatives of dramatic art. But they study only superficially, perform everything in a desultory manner, and therefore do not reach the highest pinnacles of art. Nevertheless, they also have had estimable artists, a Forrest, a Davenport, a Wallack, a McCullough, a Booth, a Barrett, and others, but they also had to compromise in rendering works that are not national and thus laid themselves open to foreign influences.

Where, asks Signor Salvini, is to be found a poet who does not show the exclusively national note? In England, he replies, on the borders of the Avon,—Shakespeare! Shakespeare is the world poet.

Shakespeare shows in his works no exclusive nationality. He knows how to speak to all hearts, to all intellects. He was not satisfied to copy and render the special peculiarities of the character and customs of his people, but depicted only men as they are and as they will be in the whole world. In "Macbeth" he presents himself as Scotchman, in "Hamlet" as Dane, in "Merchant of Venice" and in "Othello" as Venetian, in "Julius Cæsar" and in "Coriolanus" as Roman,—to speak briefly, he changes himself with the subject and identifies himself with it; words, thoughts, pictures exercise a common effect to produce local color and characterize the personages whom he represents. If he had been a polyglot he would have employed different languages according to the localities and kinds of men that were before his mind. In this way also modern authors ought to produce their works, and in this way actors should represent the different characters,—change themselves, try to penetrate the bones, nerves, blood of the character to be represented, in accordance with the nationality.

Why Is the Drama Declining?

In a vigorous article in a recent number of *Nord und Süd* (Berlin) Herman Bang

maintains that "modern life is slowly but irresistibly robbing the actors' art of its means of expression." He says:

Modern life is regulated by the working of machinery. The factory and production *en masse* are its aim and symbol. The great body of mankind, too, come forth from the kiln of the time like manufactured articles,—the second like the third, the third like the 739th. Steadily spreading education, the common reading (increasingly newspaper reading), the greater uniformity in dress, even the ever widening condition of well-being, which puts more and more people on a level,—all conduce to bring about a growing outward sameness in modern society. This tendency is intensified by the unrelenting striving for outward things, in which all must join, and which leaves the individual little time or strength to cultivate his inner independence and individuality. The fear of isolation, of ridicule and scorn ranges him among the millions. We all adopt a common demeanor and a common ægis. But this common demeanor necessarily assumes a dull and uniform tint, since it springs from the sole striving not to appear singular. We aim at a uniformity without noise. For noise attracts attention. We adopt a manner from which all stronger modes of expression are excluded. We unconsciously restrict our motions, exercise precaution even in using our voice, speaking without modulation or rhythmic change. We avoid vivacity of facial expression and any too sudden transition. We all do this every day, every hour, and thus life itself effaces the only means of expression of histrionic art.

The actor himself lives in the midst of

this life, with direful consequences to his art, according to Herr Bang:

He has ceased to belong to a caste; "society" has long since accepted him, and, as a member of it, he gradually in his daily life renounces the means of his art himself. But when he steps upon the stage; when he is to exercise his art, its means are no longer at his command,—he has forgotten them. He who speaks to us only through the diversity of voice, expression, gesture, has forgotten that diversity and,—no longer says anything to us. This is the root and origin of the decline of the mimic art.

If the actor will abandon tradition and the tricks of the trade and return to a study of himself and others,—that, in spite of external similarity, our souls find special and varied forms of expression, and that, despite our mask of convention, we still betray ourselves, as man has always done,—there is still hope for the drama, the German writer believes.

We betray ourselves by a glance, by our expression, by our gestures, by our voice,—in other words by all the things that ever are and were the means by which the dramatic art reveals the human soul. The modern man wears the universal mask. But lightning-flashes illuminate it and,—betray him. These flashes are the rapidly flaming up and rapidly extinguished revelations of our inner peculiarities, of ourselves. The new art of the stage must lie in wait for them, snatch and retain them.

HOW SPAIN GAINED BY THE LOSS OF CUBA AND THE PHILIPPINES.

"UPON mature consideration it cannot be doubted that, once the initial stupor and spasm which the catastrophe produced had been thrown off, the liberation of Cuba and the Philippines was the beginning of Spain's regeneration." This is the statement of a Spaniard, Professor Luis García Guijarro, of the University of Madrid, who contributes a paper on the state of Spain since 1898 to the *Yale Review* for May. The professor goes on to explain that the lost territories brought Spain little good, inasmuch as most of the rich income which they yielded was appropriated by the administrators, "only a small remnant reaching the public treasury; on the other hand, they were responsible for a lengthy chapter in the volume of the public debt." And when the colonies cried "At last independent!" the Spaniards could answer, "At last free!" as if "the

loss of their insular domains had relieved them of a heavy load."

Professor Guijarro gives some interesting information about Spain in the process of regeneration. Since the loss of the colonies there has arisen a new political power, "la solidaridad," the principle of solidarity. This is "the concentration of the diverse political tendencies of a section for the defense of its interests against a policy of centralization." The political education of the citizen is progressing, and with this advance there is a corresponding decline in the influence of the "cacique," a kind of political chief or boss. Of this unique functionary the professor gives the following description:

Fearful by the great and the powerful, frequently of but little education, but of a cunning sagacity, an entangler of the clearest questions and an interpreter of the most difficult, the

"cacique" manages and upsets the government of a province. Mayors, governors, deputies, high and low officials, all owe to him their posts and are his instruments, going from ministry to ministry, dancing attendance, while at home in his little corner the "cacique" with a shrewd imagination prepares the strokes of local politics.

In order to avoid the abuses of excessive competition, measures are being passed to insure protection for the laborer. An Institute of Social Reforms has been established, and this includes among its members eminent Socialists and also delegations of laborers and employers elected by vote from their respective classes. It will aim to adjust labor disputes and to prevent strikes; will regulate wages and working hours, child labor; and will, moreover, act as a censor of all governmental measures having a social character.

Before and immediately after the war with America emigration assumed such large proportions that whole provinces of Spain were depopulated. In some of the towns the people emigrated *en masse*.

Often the emigration was well ordered, but still oftener the unwary peasants, under the hallucination of enriching themselves, and always dreaming of the golden legends which the popular imagination has created in regard to the "Indians" (adventurers who return rich from America), set out by whole families, without any guaranty of work. . . . The government could not oppose this without restricting individual liberty, and . . . in the principal ports from which the emigrants embarked a multitude of emigration agents swarmed, promising abundance and work which did not exist at all. The authorities, the press, and the labor societies cried out against this exodus, which was depriving Spain of hands for cultivation.

To remedy, if not to prevent, these evils, internal colonization statutes were enacted providing for the establishment of agricultural colonies which, by encouraging the cultivation of certain products, would tend to repopulate the most deserted districts. Agriculture and her mines, says the professor, "constitute the most abundant resources of Spain, and it is on them that Spain's future depends." A taste for agriculture is developing; and "modern cultivation is being introduced in almost all the provinces." As regards the mining industry:

Right after the war many mineral deposits showed an unwanted development, causing some towns to grow in the manner of American cities. But with truth came falsehood, and . . . projects, initiated for speculative purposes and to facilitate stock-jobbing operations, caused great ravages and were productive of grave crises,—crises from which we are only now beginning to recover.

Spain still suffers from the evils of militarism. When the troops from Cuba and the Philippines had been brought home "the budget was increased to a great degree by the sums necessary for pensions and retirements."

It is in the matter of education that Spain's chief need exists. Professor Guijarro writes fully and very frankly on this subject; and we condense a few of his critical observations:

It must be confessed that to-day Spain is, as regards education, bereft of the protection of the Spanish powers that be. . . . A complete reform demands appropriations a hundred times greater than those now assigned. . . . An attempt should be made to raise the mentality of the country, in order that we may not suffer the shame of figuring in the statistics of illiteracy in the same class with Russia or the Balkan States. . . . The budget of instruction hardly amounts to \$400,000, and that, although the minimum salary for teachers in the elementary schools has been fixed at \$200. . . . The most important social issue lies in the need of convincing the people of the benefits which instruction can bring them. . . . Children of seven or eight years tend cattle and aid their fathers in the tasks of the field. Such will ask, "Why does one have to learn his letters if he is going to be a farmer?"

Families that are able send their sons to the "Instituto," an establishment similar to the French lycée; but even here the students present themselves without sufficient preparation, and "follow a multitude of curricula, in a hurry to get through."

This is the state of our system of education. Truly sad and discouraging is the spectacle offered by a people to whom a function of such importance appears so unimportant; and vain are the continual lamentations of the cultured class, if their complaints find no echo with the authorities, and unless by means of sensible regulations love for culture and a desire to learn be encouraged.

This is the only possible means of regeneration. Let us look beyond our frontiers, if it seems advisable, for institutions which may serve us as models; but yet let us not allow ourselves to be carried away by the harmful spirit of contempt for everything that is national. Spain has at its disposal an indigenous element which is very sound, and very ripe for education, if the processes which are employed do not violate its nature. Let us take a model, but let us adapt it to the Spanish temper, in order not to prejudice the people. If we have been great in history, and if Destiny has reduced us to impotence, let those experiences which are to be gained from misfortune be fruitful, for only thus are they good and wholesome. Fate often brings two rivals face to face in such a manner as to show, in the better conditions attained by the one, the possible dawn of the other's rehabilitation: *fas est ab hoste doceri*.

THE CAUSES OF SPANISH DECLINE.

THE causes of the decline of Spain's power is the subject of an article by Señor Jerónimo Bécker in *Nuestro Tiempo*. The writer seeks an answer to the following questions:

Why, when other nations have succeeded in maintaining themselves for long historic periods in a predominant position, was our splendor so evanescent and our decadence so rapid? Why did Spain see the beginning of her downfall in the very moment of her greatest glory?

For Señor Bécker, the true reason is the lack of unity in Spain. The union of Castile and Aragon on the marriage of Ferdinand and Isabella was no organic union, and the other provinces maintained their individuality and did not feel themselves part of a homogeneous nationality.

Another cause of Spain's decadence was the undue and unnatural expansion of her dominions, and the incessant demands made upon her strength by the ambitious plans of her rulers during the sixteenth and seventeenth centuries. The resources and population of Spain were insufficient to stand the continual drain, and exhaustion and decay were the necessary and inevitable results.

With Charles V. we assumed the agreements and enterprises of the House of Austria, and for one reason or another we were drawn into irreconcilable rivalry with France, being forced to engage in war, at the same time, in Italy, in Flanders, and in Germany. In addition to this, we were driven by imperious necessity to fight for the consolidation of our possessions in America, and to chastise the pirates of the Barbary Coast, who were destroying our commerce.

Recapitulating the various causes which conspired to rob Spain of her proud position among the nations, and emphasizing the need of energetic effort to restore the land to its proper place in Europe, Señor Bécker concludes as follows:

The discovery and conquest of the New World, which contributed so much to vitiate the national character; the expulsion of the Jews, which robbed us of intelligent merchants and material resources; religious bigotry, which isolated us in the world; all these factors exercised a great influence. However, over and above all these partial causes, there was one principal cause which, incessantly affecting the life of the State and weakening its action, placed us in a situation of inevitable inferiority. This fundamental cause, the origin of Spain's decadence, is the persistence of the various nationalities constituting the Spanish monarchy. All great nations owe their formation to the

zeal and enthusiasm inspired by great triumphs, for peoples rarely unite in misfortune; but our successes and our victories, thanks to which our flag floated gloriously over all the world, did not succeed in producing this effect. We had been divided and we remained divided; and while the other peoples of Europe, especially the French and the English, tended toward unity and came to constitute powerful nations, we remained separated, divided, and disunited. Spain as a nation did not exist, because the Spaniards were separated, not only by language, but also by sentiments, aspirations, customs, education, and even by those small and temporary interests which usually have the most potent influence over every-day life. In this way we fell, and fell so low that we have not yet succeeded in recovering ourselves completely; and we shall never succeed in doing so if we cannot convince ourselves that incessant labor is indispensable for the accomplishment of the task. This can only be done by invigorating the sentiment of nationality; by combining all our aspirations in a single aspiration; by uniting all our ideals in a single ideal, and by subordinating all particular interests to the common interest.

What is "Catalonism"?

A remarkable illustration of this tendency to discussion appears in another issue of the same magazine.

The "separatist" movement in Catalonia has often been misunderstood, the fact that there is a strong tendency in that Spanish province toward republicanism and even toward socialism having served to obscure the real issue.

The true origin of the movement, however, is to be sought in the enthusiastic devotion of the Catalonians to their native tongue. Catalonian differs as much from Castilian Spanish as Dutch does from German, its closest affinities being with the Provençal formerly spoken in Southern France, and the agitation now so actively pursued in favor of autonomy is in line with the dominant tendency to revive and perpetuate the forms of speech handed down from the past and bound up with the life and history of a people. Several articles on this subject by Señor B. Santos Vall and Señor José Alardern have recently appeared in *Nuestro Tiempo*, and, although the writers are disposed to be somewhat reticent in regard to the exact details of the political changes aimed at, much interesting information is given. Señor B. Santos Vall characterizes the movement as follows:

The northwestern part of Spain has aspired, and does aspire, to be restored to the use and

enjoyment of all that constitutes its natural and historic life, while justly and properly conciliating this with the natural and historic individuality of the sister provinces. For the union of all the provinces is imposed at once by century-old ties and by the visible desire of Spaniards on both sides of the Ebro. Catalonia aspires to administrative and political autonomy, and she desires that the other regions constituting Spain shall be enabled to obtain equal advantages,—if they do not already possess them,—and share these with her. Since when has Catalonia had such pretensions? An appeal to the irrefutable testimony of history shows us that the province has never ceased to cherish them, ever since, in 1716, by the decree of Nueva Planta, it was assimilated to the other regions which, willingly or unwillingly, submitted to Philip V. From this time forth the Catalonians have made use of every occasion or conjuncture to protest against the usurpations of the central authority,—let this be well understood,—not against their companions in misfortune and shares in servitude and denationali-

zation. There is one fact we can qualify as a conclusive proof of the permanence of this spirit. This fact is the unalterable devotion of the Catalonians to the language which has been spoken from a remote period in the province. This language, proper and peculiar to the Catalonian people, is essentially distinct from the others spoken in the Spanish peninsula, and it has unquestionably been one of the causes contributing to the belief held both by the Catalonians themselves and by the inhabitants of the other Spanish provinces, that the Catalonians differ in character from the other Spaniards. History, ancient customs, and modern tendencies have all conspired to produce this difference.

Freed from generalities, the program of the more conservative Catalonian leaders seems to aim at the creation of a United States of Spain, in which the relations of the several states to the central government would be not unlike those of the states of our Union.

THE DEFEATED ADMIRAL ON THE BATTLE OF MANILA BAY.

“WE were a plaything for the Yankees!”

With such a concise summary Rear-Admiral Patricio Montojo, commander of the Spanish fleet in Manila Bay on May 1, 1898, reviews “The Disaster of Cavite, Its Causes and Results,” in *España Moderna* for May.

England in the affair of the Trent, France at Fashoda, knew how to dissemble their irritation at insults in order to preserve peace and avoid war. We alone, like our great national hero, Don Quixote, went blindly forward to war, without preparation, without study, at the most inopportune moment, yielding only to the pressure of the United States, when that crafty nation believed the moment most favorable for the realization of her long premeditated plans.

The “misfortune” of the breaking of the cable on May 2, he states, left Spain momentarily in ignorance, seeming indifference, and even scorn as to the fate of a few hundred men many leagues away. “Bull fights amused the multitudes as much or more than ever.” The Cortes contented itself with making ridiculous speculations and charges about a condition of affairs it could know nothing of. It was said the American ships had not even found it necessary to fire a gun; the Spaniards had been taken by surprise while Montojo himself was giving a ball on shore at his house.

In refutation of these charges the Admiral quotes verbatim an accurate report of the battle telegraphed to the New York *Herald* at the time, and gives the testimony of an Englishman, Mr. Mackinley, an eye witness: “On the 30th, when we joined the fleet, we found all preparations made to receive the Americans, anchors hove short, fires lit, steam up in the boilers, and every one at his place.”

In the city of Manila another witness describes everything in confusion; at midnight were heard the shots from the batteries at the harbor entrance; no one slept till dawn. “At 5 o'clock in the morning of May 1 the first shot was heard. Soon it became a Hell! The battle did not last three hours, but it seemed to us a century. The horrors of the fire! The terror of the noises! Women screamed and ran disconsolately about the streets. No idea can really be given of the confusion. Even the earth itself seemed to move as if shaken by an earthquake.”

More than once the battle of Cavite has been compared to that of the Yalu, in which the Japanese defeated the Chinese. The Italian, Bonamico, has published an interesting leaflet under the title “Il Conflitto Ispano-Americano,” showing that Admiral Dewey maneuvered his vessels like Ito at Yalu, making complete use of the superiority of his armament without exposing his ships, while Admiral Montojo, like Jing,



ADMIRAL PATRICIO MONTOJO.

(The Spanish Commander whom Admiral Dewey defeated in the battle of Manila Bay.)

tina. But besides this the maximum speed of the Spanish vessels was only thirteen knots, while that of their opponents exceeded seventeen. The bay at this point had a width of twenty miles, allowing Admiral Dewey a sea room of seventeen. Mr. G. S. Clarke has published an opinion in the "Naval Review" (of Lord Brassey) that it would have been "the rashness of insanity for the Spaniards to have attempted battle upon the high sea," thus dispensing with the protection of the batteries at Cavite.

Many other foreign critics favor my decision that, given the critical circumstances in which I found myself placed, and the defection of the government from my support, I could not have pursued any other measure. Cervera's fleet should have been sent to Manila at the first moment instead of "bottling" itself up in the harbor of Santiago de Cuba. Everything was done wrongly, principally owing to the unpreparedness of our government and to its ignorance of those means upon which the Americans relied for the prosecution of the war. That war we should have known how to avoid even at the cost of large interests. Every reference to the disastrous and overwhelming defeat at Cavite points anew to the too plainly perceptible abandonment (by Spain) of the Philippine Islands, both by land and sea. What indeed can be said of those torpedoes which were sent to Manila in an unfinished condition? Can anything be more ridiculous? If we were not treating of a most sorrowful page in our maritime history nothing but laughter and ridicule could be accorded the measures taken by the ministry to remedy the defects of the so-called Philippine fleet.

And as to the feats of the Yankees? It was, indeed, only necessary that they should have had as their enemy a nation so indolent, improvident, and shortsighted as Spain.

REAL TOLERATION THE WATCHWORD OF THE NEW ISLAM.

WHAT is the relation of the Mohammedan religion to the new régime in Turkey? Can the Sheriat, the sacred law of Islam, be made to harmonize with progressive legislation and the methods of modern social and economic life?

It will be valuable, as a preliminary to discussing these questions, which are being asked and answered in almost all the authoritative journals of Turkey, to set forth the main precepts of the Sheriat, especially so since all reformers invariably invoke some citation from the Koran to support his point of view.

On every occasion during the recent revolution every party leader has been careful enough to explain that the religious laws are compatible with their political principles. In

fact, at the time of the counter-Revolution of April 13 it was easy work for the reactionaries and the paid agents of Abdul Hamid to incite ignorant, fanatic soldiery to revolt against the Reform party by telling them that the sacred laws,—the Sheriat,—were violated by this party, the leaders of Parliament, and the ministers,—and adding also a few gold pieces.

The Sheri law has the following general four sources, called in Arabic: Edille-i-arbaa:

(I) The Koran. This is the holy book of divine revelations of the Moslems. It is written in the first person,—being considered as the direct words of God,—containing divine decrees revealed from time to time to Mohammed, His Prophet, adapted to some event or emergency. This is the written law from which is derived



ALL CREEDS ARE REPRESENTED IN THE TURKISH PARLIAMENT.

the Moslem Code of civil, penal, and religious law. It is held in the utmost reverence by all true believers. No unclean hand can touch this book. It contains much moral philosophy and preaches charity as the foundation of the all-true religion; (II) the "Sonnat" or "Oral Law," meaning the verbal precepts and apologies of the Prophet. These are of two kinds: (a) Verbal decisions or "kawf," which were collected and compiled after Mohammed's death by the first Caliph Abu-Beker, who also formed the first edition of the Koran; (b) the Silent Assent or "Takrir," containing all cases or litigations which happened during the Prophet's life, and to which he did not object, approving them by his silence; (III) "Idschma-i-Ummet," the Union of the People, meaning the decisions and sayings of the first four Caliphs: Abu-Beker, Othman, Omar, and Ali; the decisions of the Prophet's camarades and of recognized law scholars of the four caliphats upon Sheriat matters; (IV) the "Kiass," or application of certain law decisions of the three above-named law, origins on similar questions. For instance, according to a verbal decision of the Prophet, a judge cannot "talk law justly" when in anger, the reason being that, at such times, he does not possess his entire mental faculties. Accordingly, it was similarly decided by "Kiass" that no judge shall decide litigations while in mourning, sadness, hunger, sleeplessness, or likewise.

Such are the main bases of the Sheriat law.

It was till now the foundation of the Ottoman civil law (Medschette), and the land laws. The Penal and Commercial Codes are bad translations and adaptations of French Codes.

The Young Turks have not forgotten during their reform propaganda and present ascendancy the importance of the Sheri laws and their influence on the Moslem population. This is why they state as often and as loudly as they can that the constitution is compatible with the "Sheriat." Their newspapers are giving examples of religious decisions of great Moslem theological doctors for every public act. Sentences of old beloved Sultans are used. They also cite Abdul Medjid:

The civil and religious conditions between Moslems and Christians must be equalized, so that under the laws only one and the same people shall exist. In one word, to fuse all the nations in Turkey by so much impartiality, kindness, equality, and tolerance, so that each of these nationalities shall find its honor, its conscience and security bound up in contributing toward the welfare of the Empire.

The Koran itself approves of popular representation in government and in a way

which cannot be gainsaid. At the beginning of Mohammed's flight (the Hegira) to Medina from Mecca, where he was persecuted, there were some battles between his adherents and the kinsmen of Mecca. He had to offer to the latter an open battle at Ohod, much against his good judgment and only on the advice of his small army of 700 who wished to fight in the open, while he wanted to defend himself from within Medina. After being defeated he was very angry and decided that he would never again consult his people. The next day a revelation of the Koran, however, brought him the following precept: "Always consult thy people and follow their will. Even if they counsel wrong, it must be done as they wish." Mohammed followed this principle thereafter, and the reform party in Turkey now uses this case to show the Moslems that the Prophet and the Koran are for public representation and public sovereignty.

As much as possible and wherever decisions can be compatible with modern legislation the Sheriat will be the basis of reformed Turkey. But if this law cannot be reasonably applied to modern legislation, which it could not foresee, the Sheriat itself allows the enactment of "timely" laws, according to textual wording of Article 39 of the "Sheriatic Medjette": "It cannot be denied that laws are changed with the change of times."

A number of Mohammedan priests are surprisingly liberal and progressive. Many representatives in the Parliament are Moslem priests, coming from different parts of the country. They are the flower of the Parliament and do not oppose any reform, acclaiming all progressive speakers. They often cite at the Chamber the Koran to condemn some injustice or to approve of some modern law; they talk peace and union as sincerely as any one. What does this prove? That Islam is as tolerant or can become as tolerant as any religion. With the Moslems even tolerance must come from the Koran, so strong is their belief in that book.

It is very encouraging that the most respected, learned, and influential theologians are spreading tolerance and union. Since the last massacres in Adana the director of the celebrated university of Al-Azhar in Cairo, the Imam Ekber Sheik Behri, issued an encyclical (fetwa) exhorting the Moslems of Turkey to live in harmony with their Christian brothers. An Arabian lawyer of the same city has generously offered to print copies of this fetwa at his own expense and

to send them to all civil or military, small or great, functionaries in all principal cities and towns in Turkey, as well as to all Arabian and Turkish papers. This was recently announced in the *Sabah* (Morning), a Turkish daily, of Constantinople.

Chief among the advanced and reformed priests is the present Sheik-Ul-Islam, Sahib Mollah Bey, who is now 74 years old.

This ecclesiastic began as secretary in the department of which he is the head to-day. He then became a member of the State Council and later president of that body. His true character and liberality were shown during the monstrous trial at Malta-Kiosk (dependency of Yildiz Palace) of the great patriot and reformer, Midhat Pasha, thirty years ago. Notwithstanding threatening pressure, Sahib Mollah was the only member of that court of infamy who had courage enough to disobey the orders of his master (ex-Sultan Abdul Hamid). Upon the re-establishment of the constitution last year he was named a Senator, which he still is. A few days before July 24, 1908 (the declaration of the constitution), this venerable "uléma" of irreproachable character was arrested upon a palace order, and his house was searched with brutality on suspicion that he had relations with the Young Turks. He is one of those rare old men whose moral character was not affected by the iniquity of the old régime. His power is great, his influence still greater. Pope of Islam, he interprets the Sheriat and issues religious "fetwa" (encyclical). He appoints priests or influences their appointment; he is the most important figure in the present cabinet. The Sultan, who is the Caliph of Islam, spiritual head of the church, leaves the administration of the church to the Sheik-Ul-Islam (Head of Islam). This influence on about 200,000,000 of Mohammedans all over the world is almost incalculable.

At the last revision of the constitution the powers of Caliph and Sultan were well defined, and occasioned much open discussion in Parliament. While recognizing the Mohammedan religion as the state religion, the constitution grants full religious liberty to all faiths, with equal civil and political rights.

However much Christian blood was shed during Turkish rule, Turkey has always shown much tolerance toward other faiths. Massacres were generally organized by palace officials with the consent of a sultan for political reasons. Instigating the fanaticism of ignorant tribes, misinterpreting the Sheriat, robbing are causes of such unfortunate and inhuman acts. There is an injunction in the Koran: "La Ikrahe-fi-eldin," which means "no religion can be imposed." If Moslems have not always observed this command they have shown themselves very often tolerant and generous in religious matters. Recent massacres are more out of a desire to plunder, rob, commit violence, or out of political reasons, than to impose religion.

With a parliament and army to watch

over the rights of citizens, a well-disposed and sincere-minded sultan on the throne, with most of the influential priests fair and progressive, it should not take very long before the education, industry, and commerce will unite all races, nationalities, and religions. Many Mohammedan priests are doing their share, and help with their influence. Here is a translation of a part of a religious decree issued by the constituted church authorities of Trebizonde to the Mohammedan community in order to calm them and avoid trouble:

To all Ottoman vilayets, independent sandjaks, their mutifs and ulémas; to all sandjaks, cayas, mutifs, ulémas of the vilayet of Trebizonde; to the fourth, fifth, and sixth army corps: This proclamation is issued by the union of ulémas of Trebizonde in the "Fetwahané." A telegram informs us that some Moslems and many priests and theological students are fleeing to the provinces through false and alarming news given to them by agitators and irresponsible newspapers. From official declarations it is, however, well known that the army which came to Constantinople, with the aim to protect the state and nation, is full of veneration to the ulémas, who form the aristocracy of the country. The Moslem population is, therefore, requested, in the name of the welfare of the fatherland, not to believe the false alarms which may be spread in the provinces and contrary to all right declarations by ignorant hodjas and agitators disguised as hodjas, and not trouble the accord which exists between Moslems and Christians. . . . It is known that a constitutional régime was recommended by the Prophet and Caliphs. In the Koran the "verset," "vé cha vé rahm," mentions it. The constitution, source of prosperity, happiness, assures justice. The Sheriat wants justice and commands it. It loves the constitution, which wants justice,

and does not love those who oppose it. Those who say the contrary are enemies of the country. Everything against it is corruption. Do not believe them. Repulse them. Since centuries, union and accord exists between all inhabitants of our country. Everybody knows it. But the delicacy and gravity of the circumstances are supreme. From now on and always respect still more social relations. The Sheriat Sheriff commands so. Those who will act against this prescription will, by so doing, revolt themselves against God, against the Prophet; they would betray Islamism, the Ottomans, and the country. April 24, 1909 (10 April, 1325, Hegira, Mohammedan reckoning).

The recognized religious leaders of Turkey are preaching conciliation and not war, and are not afraid to condemn the "ignorant hodjas or disguised reactionary hodjas." The *Stamboul*, a French Christian paper in Constantinople, says:

These leaders of Islam are for liberty in the name of their Religion, God, and the Prophet. To those priests of Islam who believe in liberty, equality, and fraternity, and who know how to proclaim openly their convictions, either in the Parliament or by "fetwas," we who are of another religion address once more the sincere testimony of our respect and sympathy.

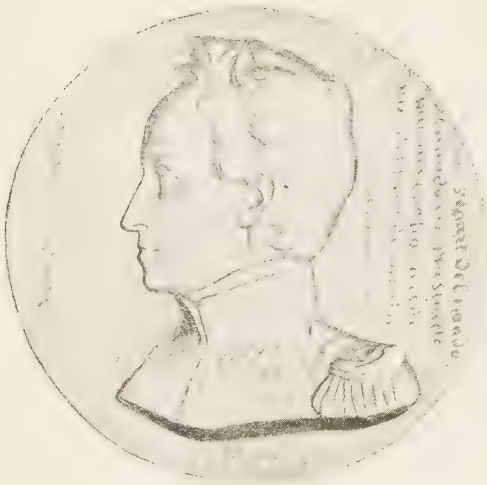
The words, "La Illaha il Allah! Mohammed Resoul Allah" ("There is no God, but God and Mohammed is His prophet"), which are heard five times daily from the minarets of all Moslem mosques, will send in the future, as they should have done throughout the past, concludes the Turkish journal just quoted from, a message of friendship and good-will to all the world.

THE EMANCIPATION OF SOUTH AMERICA.

ON May 25, 1910, will be inaugurated at Buenos Aires a series of celebrations of the centennial of South American independence, or, to be more exact, of the one-hundredth anniversary of the revolution which resulted in the emancipation of the countries of South America from Spanish domination. The Paris *Figaro*, taking time by the forelock, presents to its readers, with its issue of recent date, an illustrated supplement treating of the events of the upheaval in Latin America, which was to have such important consequences. The data are taken mainly from Mitre's history of San Martin, the hero of the passage of the Andes; and they fully justify the historian's prediction that "Europe will come to regard the emancipa-

tion of South America as the most important political event of the nineteenth century."

The first signs of revolution manifested themselves simultaneously at the two extremities and at the center of the South American continent in 1809. In 1810 all of the Spanish-American colonies "rose in rebellion as by one inherent impulse, and asserted the principle of self-government,—the germ of their independence and their freedom." Six years later (1814-1816) most of these revolutions had been subdued. The United Provinces of the Rio de la Plata alone held their ground, and "after having expelled from their territory the former dominators, proclaimed in the face of the whole world their own independence, and



SIMON BOLIVAR, WHO LIBERATED COLOMBIA, VENEZUELA, AND ECUADOR.

(From a bronze medal.)

gave to the conquered colonies the signal for the supreme combat by making common cause with them."

In 1817 the Argentine revolutionists decided on a plan of campaign, of policy, and of continental emancipation; it took the offensive and changed the result of the struggle; it crossed the Andes and conquered Chile, and jointly with her gained command of the Pacific, liberated Peru, and carried her arms to the equator, contributing to the success of the revolution in Colombia.

This vigorous impulse was felt as far as the extreme north of the southern continent, which described a similar evolution to Argentina, crossed the Andes, and converged toward the center, where the two emancipating forces effected a junction as had been agreed.

The struggle now became circumscribed within the mountain regions of Peru, the last refuge of Spanish domination, already mortally wounded in the battles of Chacabuco and Maipou, of Carabobo and Boyaca. From that time South American independence ceased to be a military and a political problem and became merely a question of time and effort. In fact and of right the Spanish-American colonies were free, freed by themselves without foreign aid, having struggled single-handed against the combined powers of the whole globe; and from the colonial chaos arose a new organized world.

During the progress of these events the United States in the northern continent had recognized the independence of the new republics, and in 1823 had proclaimed the Monroe Doctrine, establishing a new principle of international law with the formula, "America for the Americans." Free Eng-

land, which in the beginning had favored the revolution, began in 1818 to side with Spain; but Washington diplomats interfered in favor of the complete emancipation of the revolting colonies, and Lafayette, supporting this view, declared to his government that "any opposition made to the independence of the New World might afflict humanity, but could not put that independence in peril." The attitude of the United States, supported by England, turned the diplomatic scales; and at the Congress of Verona (1823) the English prime minister, Canning, declared:

The battle has been fierce, but it is won. The nail is clinched. Spanish America is free,—*Novus seclorum nascitur ordo!*

The causes of the revolution are not far to seek. Spain and Portugal carried their feudal absolutism to their colonies, but could not plant there their system of privileged aristocracy and social inequality. The good and the bad seed alike fructified by cultivation in a new soil, the natural product being democracy. It was a rebel world that grew up under the auspices of absolutism. Spanish



STATUE OF SAN MARTIN AT BUENOS AIRES.
(The liberator of Argentina, Chile, and Peru.)

America was regarded as the personal property of the monarch, by virtue of the Bull of Alexander VI. Thus the colonies were merely united to the nation by allegiance to a common sovereign. When the monarch disappeared, his power lapsed to his vassals, the logical and legal result being the separation of the colony from the mother country.

Three names stand out prominently in the



THE CHARGE OF O'HIGGINS, THE "IRISH-AMERICAN CONQUEROR OF SPAIN," AT CHACABUCO.
(From the painting by Pedro Subercaseaux.)

annals of America,—Washington, Bolivar, and San Martin: Washington, leader of the democracy of the north; Bolivar and San Martin, the emancipators of the southern half of the continent. San Martin's invaluable contributions to the success of the Spanish-American revolution, with his crowning achievement of the passage of the Andes (February, 1817), rightly place him among the most honored of his countrymen. His crossing of the Andes is ranked by historians and military scientists alike with the passage of the Alps by Hannibal and Napoleon. Born February 25, 1778, at Yapeyu, in Misiones, he at the age of eight went with his family to Spain. In due time he entered Spain's army and fought under her flag for twenty years. In London he and Bolivar took an oath to work out the cause of emancipation in South America, and in January, 1812, San Martin, accompanied by Alvear and Zapiola, embarked on the *George Canining* for the Rio de la Plata. During the three following years San Martin matured his plans for the invasion of Chile via the Andes, which separate like a mighty barrier the pampas of Argentina from the smiling valleys of Chile. "What disturbs my sleep is not the strength of the enemy, but how to

pass those immense mountains," he is reported to have said as he gazed on their snow-clad summits. The Grand Cordillera is accessible solely by certain passes ranging from 9000 to 12,000 feet above sea-level. All the troops, guns, and carriages had to be mounted on mule-back, and the marching was necessarily in single file. San Martin's operations covered a front of 1300 miles.

His plan was to invade Chile by the passes of Uspallata and Los Patos, in order to attack the enemy's forces in the center, to charge on their main body, and to seize at once the capital, thus terminating the campaign by a single coup. . . . To attain his object it was necessary to hide his real point of attack, to direct his marches so as to take the enemy between two fires, and by converging roads to concentrate his army at a given time. . . . On one and the same day Chile was conquered both in the north and in the south (February 12, 1817).

San Martin's achievement astounded Spain. One Spanish writer termed the hero "the terrible champion of American Independence" and acclaimed the passage of the Andes as "one of the most glorious feats the world has seen." Events in South America now received a sudden impulse; and one of the direct results of San Martin's success was the invasion of New Granada by Bolivar in 1819 and the founding of Colombia.

PREVALENT MISCONCEPTIONS CONCERNING THE WAR OF 1812.

GENERAL GEORGE W. WINGATE, the founder of Creedmoor and for twenty-five years president of the National Rifle Association is, as might naturally be expected, a firm believer in "teaching the young idea how to shoot" and to shoot straight. It was not to be supposed, therefore, that he would allow to pass unnoticed an editorial in the *New York Evening Post* denouncing the attempts of the Association and of the Public Schools' Athletic League, of which he is the president, to instruct the High School boys in shooting with a military rifle. The *Evening Post* asks "Could the use of the rifle have any other effect than to stimulate the reckless use of arms by minors?" and "What kind of patriotism is that which is to be acquired by going to a range and shooting at dummies?" It maintained, of course, that intelligent instruction in the use of firearms should in the ordinary course of things result in a diminution of accidents, and that the primary object in "going to a range and shooting at dummies" is to acquire accuracy of marksmanship. General Wingate asserts, in the *North American Review* for June, that questions like those propounded by the *Evening Post* arise from a misconception of the facts relating to certain events in our national history. He says:

This and a number of similar statements in otherwise intelligent periodicals, as well as much of the criticism of certain statesmen of both parties and other influential men on Mr. Roosevelt's anxious desire for four battleships, and against the recent law of Congress to put the National Guard of the different States into condition for service, and, in particular, the persistent refusal of Congress after Congress to enact the military legislation urged by nearly every President, are largely based upon erroneous ideas which exist in respect to American success in the warfare on land during the War of 1812.

He believes that a majority of the people hold the opinion that this war "was, on land as well as on sea, a series of 'magnificent victories, won by inexperienced American citizen soldiers against superior forces of veteran British regulars.'" This was illustrated in a song, popular about fifty years ago, the refrain of which was "In 1812 we licked them well." The plain, unvarnished truth is that the campaigns on land were,

with a very few exceptions, "a series of humiliating disasters," which arose from the following causes:

1. The Government had made no preparation for the war prior to declaring it.
2. After war had been declared, instead of enlisting troops for a term of years sufficient to insure their becoming instructed and disciplined, the Government and the States put their main trust in the militia.
3. The officers, both of the army and the militia, were without military knowledge, and were usually appointed for political reasons.
4. The leading commanders who were not thus appointed were soldiers of the Revolution, who had become inefficient through age.

In consequence, the war was inordinately prolonged, and its money cost became enormous.

In refutation of the popular idea concerning the land operations in this war, General Wingate cites a number of extracts from the "Military Policy of the United States," compiled by the late Major-Gen. Emory Upton, left by him as "a legacy to his country," and published by the War Department at the request of Gen. W. T. Sherman, who "read and approved it." The accuracy of the statements made therein cannot, therefore, be impugned. We condense a few of the items:

1812. When war was declared (June 18) the total of the British troops in Canada was less than 4500 effectives, mainly old men and invalids. The United States regular army, numbering on paper 35,000, was actually but 6744 strong. In July, General Hull crossed from Detroit to Canada with 1800 men. Without inflicting any damage, he suddenly retreated to Detroit, where (August 16) he was besieged, and, without firing a shot, he surrendered his entire force to the British, numbering 1320, including 600 Indians.

On October 10 4000 Kentucky mounted militia, who had marched against Indians on the Wabash, became scared by a prairie fire, abandoned their general, and dispersed to their homes.

November 28. General Smyth, having raised 4500 militia for a month, started to invade Canada, but returned the same afternoon. On December 1 he crossed again, went a quarter of a mile, and returned. His army then disappeared.

General Dearborn assembled another invading army of 5737 men, to capture Montreal, advanced as far as La Colle River, captured a block-house, and then went into winter quarters. Nearly all the militia refused to cross the line.

During the year 58,187 United States troops, including 15,000 regulars, accomplished nothing against 5200 British.

1813. At Fort Meigs, where 1200 Kentucky militia were sent to the support of General Harrison, the whole of them were routed, only 150 escaping.

May 27. At the successful repulse of the British at Sackett's Harbor the United States militia ran away after firing one volley.

At General Wilkinson's attack on Montreal 13,000 United States troops, including 5000 recruits, were beaten back by 2000 British.

Writing on January 12, in regard to the destruction of Buffalo by the British, General Cass said: "I am satisfied that not more than 650 men landed at Black Rock. To oppose these we had from 2500 to 3000 militia. All, except a few of them, behaved in the most cowardly manner. They fled without discharging a musket."

1814. During this year we called out 38,186 regulars, 197,653 militia, a total of 235,839,

against 16,500 British. The utmost strength we could show in the shape of an effective force in battle was 3000 at Lundy's Lane.

1815. General Jackson's victory at New Orleans, largely due to the wonderful marksmanship of his Kentucky and Tennessee troops, "wound up a disastrous and humiliating war in a blaze of glory."

General Wingate thinks that "a perusal of this humiliating record" should convince any fair-minded man of the utter uselessness of depending on untrained troops and unskilled marksmen. He adds:

Can any lover of his country or any man of common sense question the wisdom of Messrs. Root and Taft, or of Mr. Roosevelt, not to mention the Public Schools' Athletic League and the National Rifle Association, in endeavoring in time of peace to prepare the United States for defense in time of war?

THE MATERNAL MUTUAL AID ASSOCIATION OF PARIS.

THE *Mutualité Maternelle*, of Paris, is the result of the deliberations of the hygienic congress held in Berlin in 1890. The representatives of the seventeen states registered at that congress declared it as their belief that no mother should be permitted to do any kind of work before her child had reached the age of four weeks.

This declaration made a deep impression on the sociologists of the nations represented in the congress. Until then, although they had searched in vain for some reasonable means of giving the mothers help at a difficult and dangerous time, they had not found any practical rule to apply to the case of the wives of day laborers.

France was the first nation to follow out the "indications" given by the congress. The suggestion of an obligatory rest of four weeks was hailed as practical and easy of application. Count de Mun, who is well known in France for his public spirit, presented an appeal to the Chamber of Deputies when that body opened the discussion of the law covering child labor, and the labor of minors (girls) and women. The head of the Christian Socialists in France urged M. de Mun to add to his appeal a paragraph forbidding mothers to resume their daily work until four weeks after the birth of their children. Despite the appeal, however, and despite the pressure of public opinion, the

Chamber refused to accept the Count de Mun's proposition. The appeal, nevertheless, produced its effect. When the representative of the Chamber answered the appeal, he said that although the state was not able to shoulder such a charge as the support of all the working mothers during the first four weeks of their maternity, it (the state) could not fail to look very favorably on such work carried on by private initiative. That suggestion opened new fields to the philanthropists. The *Annales* gives, editorially, an account of the reception of the idea by the country:

A Parisian manufacturer (M. Poussineau) studied the questions and recruited subscribers to the cause; and by the aid of the three syndical chambers of cutting and fitting, embroidery, and fine gimp-making, the first Society for the Mutual Aid of Mothers was founded. The wife of the President of France at that time (M. Sadi Carnot) was made president of the association, and on the twenty-first day of February, 1892, the government gave the work its official indorsement. In order to make it easy for the mothers to lay off from their work until four weeks after the birth of their children, M. Poussineau founded the society of honorary and active members. The honorary members contribute money for the maintenance of the work; the active members join the society for a term of nine months, and hold their membership by an agreement, binding them to refrain from all work for four weeks dating from the birth of the child. The active members pay dues, approximately 60 cents per annum,

to show that the society is not a work of charity. The term of membership is restricted to nine months, to make it possible for the society to insure methodical work and classify demands. Applicants for membership must be at least sixteen years old. They may be house workers, act as clerks, or do any kind of daily work; but they must have been born in France or on French soil. The exaction of a signed agreement not to work until the child is four weeks old insures strict adherence to the original aim of the society. The money given by the honorary members, or by others, makes it possible for the mothers to stop work for a period of four weeks, give the child a good start, and build up her depleted strength. Women who nurse their children are given prizes in money.

The work of this society has lowered the rate of infant mortality considerably (from 25 per cent. to 5 per cent. and 6 per cent.). Since January, 1904, the society has increased from 1700 to 10,000 in membership. At the present time between 40,000 and 50,000 women are waiting for admission. The association's finances do not admit of the regis-

tration of so many beneficiaries. The large increase and the good results have demanded a development of the social bearing of the work.

For example, each section or branch has been endowed with a "consultation bureau of nurslings"; a place where the children are weighed and thoroughly examined every week, and where the mothers receive the advice of the society's doctors during the first twelve or fifteen months of the young lives in their charge (advice even more useful and more gratefully received by the mothers than the medicines given).

In 1906 over 10,000 babies were received in the consulting rooms of the society's dispensaries, and at the main office 2292 consultations were given to the mothers and to the children. All the advice, the medicines, and the services are free. Although the association is the creation of one man, M. Poussineau, it will soon be one of the most valued of municipal associations.

A THING THAT INDIA HAS TAUGHT EUROPE.

UNDER this caption a writer, who signs himself "B," recently contributed to the *Modern Review* (Calcutta) some details of the life and work of one who is fairly entitled to a prominent place in the ranks of those somewhat inaccurately described as "forgotten worthies." The late Prof. F. Max Müller, he observes, in the course of a lecture at Cambridge (England) to the probationers of the India Civil Service, tried to impress upon the Christian youths before him that heathen India could after all teach them something. He did not, however, tell them that during the past century India had already taught an important thing to England.

This important thing which India has taught Europe has been a system of teaching. Very few in India know that the system of "mutual tuition,"—a system which has been practiced by Indian schoolmasters since time immemorial,—has been borrowed by the Christian countries of the West from India. The man who first introduced it into Great Britain was a native of Scotland, by the name of Dr. Andrew Bell.

Bell began life as the second son of a Scotch barber; and at his death his remains were accorded a resting-place in Westminster Abbey. He was in many respects a remarkable man; and he had the honor to have as

his biographers Robert Southey, the poet-laureate, and his son, from whose work the *Modern Review* writer quotes at large.

Bell's educational career seems to have been a veritable "pursuit of knowledge under difficulties"; and it was only by "sheer dint of perseverance" that he managed to study, and at length to graduate, at Glasgow University. After a checkered life in various parts of the world he, in 1787, went to India as a chaplain on the Madras Establishment, taking with him apparatus wherewith to illustrate lectures on natural philosophy. Concerning these lectures (from which he realized a very large sum) his biographers record that

he performed the experiment of making ice, which was the first time it had been exhibited in India. He made also the first balloon there; it was of no great dimensions: for as the assistant did his part badly, and the thing failed, Dr. Bell (in his own words) threw it in a passion from the veranda. After which the heat of the sun rarified the inclosed air, and the balloon mounted in grand style, exciting no small commotion among the natives.

Two years after his arrival in India the Military Male Orphan Asylum was established in Madras, and Dr. Bell offered his gratuitous services as superintendent. They were accepted; and it was at this institution

that he discovered the system of "mutual tuition," which was to make him famous.

When Dr. Bell took upon himself the superintendency, he found one master and two ushers employed in teaching less than twenty boys. These boys were not all arranged in classes, and of those who were, he was told that it was impossible to teach them to take places. One lesson a day was as much as could usually be exacted from them, and sometimes only one in two or three days. Indeed, the teachers themselves had everything to learn relating to the management of a school. He found it beyond measure difficult to bring them into his own views, and convince them how impossible it was that the school could be properly conducted, or the boys improve as they ought, without order, and inflexible, but mild discipline. . . .

It was, however, mainly with their incapacity, and the obstinacy which always accompanied it, that Dr. Bell had to contend at first. He was dissatisfied with the want of discipline, and the imperfect instruction in every part of the school, but more particularly with the slow progress of the younger boys, and the unreasonable length of time consumed in teaching them their letters. They were never able to proceed without the constant aid of an usher, and with that aid, months were wasted before the difficulties of the alphabet were got over.

Dr. Bell's chief difficulty was with his ushers. Every proposal he made, with a view to perfect the instruction given, they regarded as a reflection on themselves.

Things were in this state, when happening on one of his morning rides to pass by a Malabar school, he observed the children seated on the ground and writing with their fingers in sand, which had for that purpose been strewn over them. He hastened home, repeating to himself as he went, "Eureka," "I have discovered it"; and gave immediate orders to the usher of the lowest classes to teach the alphabet in the same manner with this difference only from the Malabar mode, that the sand was strewn upon a board. These orders were either disregarded, or so carelessly executed as if they were thought not worth regarding; and after frequent admonitions, and repeated trials made without either expectation or wish of succeeding, the usher at last declared it was impossible to teach the boys in that way.

Dr. Bell, however, was not a man to be baffled. He bethought himself of placing the alphabet class in charge of a boy on whose cleverness and disposition he could rely.

The lad's name was John Frisken; he was the son of a private soldier,

had learned his letters in the asylum, and was then about eight years old. Dr. Bell laid the strongest injunctions upon him to follow his instructions; saying, he should look to him for the success of the simple and easy method

which was to be pursued, and hold him responsible for it. What the usher had pronounced to be impossible, this lad succeeded in effecting without any difficulty. The alphabet was now as much better taught, as till then it had been worse than any other part of the boys' studies; and Frisken, in consequence, was appointed permanent teacher of that class.

Without at first realizing the importance of the success of his experiment, Dr. Bell proceeded to place the classes next above the alphabet class in charge of boys selected for their aptitude to learn or to teach. He, however, gave to

Frisken the charge of superintending both the assistants and their classes, because of his experience, and the readiness with which he apprehended and executed whatever was required from him. This talent indeed the lad possessed in such perfection, that Dr. Bell did not hesitate to throw upon him the entire responsibility of this part of the school. The same improvement was now manifested in these classes as had taken place in teaching the alphabet.

The experiment which, from necessity, had been tried at first with one class, was systematically extended to all the others in progression; and what is most important with scholastic improvement, moral improvement, not less in consequence of the system, is said to have kept pace. . . . The boys were rendered inoffensive toward others, and among themselves; and gentle preventive discipline made them, in its sure consequences, contented and happy. A boy was appointed over each class to marshal them when they went to church or walked out, and to see that they duly performed the operations of combing and washing themselves. Ten boys were appointed daily to clean the school-rooms, and wait upon the others at their meals. Twice a week during the monsoon season, they were marched by an usher to the tank, and there they bathed by classes. As to any purposes of instruction the master and ushers were now virtually superseded.

Bell left India in 1796; and for the remaining thirty-six years of his life devoted himself to the spread of his system in the British Isles. In 1811 a "National Institution" for education on his lines was established in London; and thence the system radiated into the provinces. Bell was as successful financially as he was professionally. It is estimated that "he took away from India £25,935 16s. 5d."; and when he died (1832) he bequeathed £50,000 for the foundation of a "Madras College" at St. Andrews, and a like sum for the establishment of similar "Madras schools" in Aberdeen, Edinburgh, and several other large towns in Scotland.

FINANCE AND BUSINESS.

NOTES ON APPLIED ECONOMICS OF THE MONTH.

NEW MONEY FOR THE "INDUSTRIALS."

ONE brief way to express the financial difference between 1909 and 1908 is in the figures that show "new capital."

Four dollars of capital have so far been handed to the leading industrial companies (not including railroads) this year for every one last year. In the month of May the proportion was *five to one*. It is not necessary to wait for the full tide of the spending of this money for building, supplies, wages, advertising, and so on, to know that it spells confidence and more business.

Bonds, stocks, and notes sold by manufacturing and other industrial corporations during the first five months (1909).....	\$172,631,600
Ditto (1908).....	46,534,500

Here are the companies that secured this new capital,—manufacturing, mining, trading, light, heat, and power-producing, and in the "public service":

Swift.	Arlington Mills.
U. S. Sugar & Land.	Union Oil (Calif.).
American Ice.	Lake Superior Corp.
United Coal, Pitts.	Lake Sup. Iron & Steel.
Lackawanna Steel.	Corn Products.
Procter & Gamble.	American Cork.
Lehigh Coal & Navigation	Union Bag & Paper.
Nipe Bay (sugar).	Cudahy Packing.
American Woolen.	Consolidation Coal.
Youngst'n Sheet & Tube.	Armour.
Mergenthaler Linotype.	Dominion Iron & Steel.
Phelps, Dodge.	Swift.
Jones & Laughlin Steel.	Burns (meat packers).
Isab. Connellsville Coke.	New River (coal).
Amer. Type Founders.	United Dry Goods.

Railroads and industrials put together obtained, during the first five months of this year, \$747,445,980. By the time this magazine is issued the grand total is expected to be a billion dollars.

Here is America's part of a world movement. Through the English Stock Exchange money is placed every week in enterprises from "Borneo Rubber" to "Mexican Railways" and "Russian Governments." And the grand total for London up to June 5 is about \$534,000,000. The highest previous record for the corresponding period was in 1905,—about \$475,000,000.

New incorporations are breaking the record. In New York State alone they have been at the rate of 12,000 a year. The highest previous record was 7700.

THE FLOORWALKER AND THE CLERGYMAN.

ALTHOUGH the end of the clash between "common people" and "corporations" may not be exactly at hand, still some of its probable features may be prophesied. To the point are the attitudes of two investors on two events of last month. One was buying,—the other selling,—because of "publicity" or its absence.

A superintendent of a big department store: "The firm has just gone into the dry goods combine, whose preferred stock is advertised in the newspapers. I know something about this business, and I think this stock is a good investment for part of my savings. It will pay me more than 6 per cent. And the *detailed figures* announced by the president of the holding company are enough to show me that the proposition has a good chance."

A clergyman in Boston: "I have decided to sell my Sugar stock, though it has been among my holdings for a great many years. I now realize some of the evil effects of the policy of secrecy for corporations." The company had been called on for several millions in cash within a few weeks by the United States Government in settlement of fraudulent weighings and by a would-be rival whose business it had been throttling. It had for years refused to publish intelligent statements of its business. Even though in that respect a change had lately been announced, the clergyman did not care to receive dividends perhaps obtained by improper methods.

This year has seen several new opportunities for the investor who wants the facts in the case. The largest single industrial borrower mentioned above,—the big Armour packing company,—in connection with the sale of part of \$50,000,000 new bonds issued its first public statement of earnings, averaged over the past eleven years, and very good earnings they were.

It may be many years before each of the unruly States passes a law as efficient as that of England. There any corporation offering shares, bonds, or notes to citizens is held for the fullest details of its affairs, on the ground that those citizens have granted to the managers of the business, through articles of incorporation, immunity from suits against themselves personally, or their estates, on corporation affairs.

Such poetic justice may hardly avail to bring all the American companies into line, as much as another reason,—that they increasingly “need the money” of the public and that the public is learning, more and more, not to give that money without sworn and satisfactory details,—since there are already plenty of prosperous enterprises that are willing to work in the light. Here is the practical, immediate lesson for the individual: Don’t invest without the facts.

“APPROVED BY THE COMMISSION.”

IN the bitter fight against the regulation and illumination of corporate affairs by commission, an unusual chapter began last month. A public body,—the Board of Estimate of New York City,—asked to bring another public body,—the Public Service Commission of the First District of New York State,—before the courts. The question was whether a certain company should have a franchise to run street cars over the new “Queensboro” East River Bridge.

The press at large has not felt that the New York Public Service bodies have been obstructive as much as helpful.

And one variety of regulation has already proved a self-confessed benefit to the regulated. Just as the protection afforded consumers by the Food and Drugs Act is referred to in the advertisements of proprietary funds, etc., so one may read in different bankers’ circulars, recently advertising the merits of the bonds of some street railway, lighting, or other public utility company, that past earnings have shown more than enough to pay interest, and that “further bonds can be issued only with the consent and approval of the Public Service Commission of the District of the State of New York.”

This means that some day such companies everywhere will be actually asking for such regulation. They will need it to make their bonds salable in competition with those from States like New York and Massachusetts.

IMPORTANT BANKING ALLIANCES.

SOME of the most experienced financiers abroad are still rubbing their eyes at the quickness of American industrial recovery. The London *Economist* and *Statist* and similar journals in Frankfort, Paris, and Rome consider it a matter for editorial comment nearly every week. One feature assisting “natural resources” and “hopeful temperament” has not yet been widely commented upon. That is the widening co-operation between financial interests often opposed in the past, with its widening of the American manufacturer’s foreign market.

On the 17th of last month it was learned that the Department of State at Washington had materially aided “a powerful and responsible American financial group” in their successful fight to join with a group of European bankers in the purchase of \$27,500,000 new Chinese bonds. Much the same people were interested in a project for a Pan-American bank, which would do much to promote commercial connections with Central and South America.

Composing the Chinese syndicate were Kuhn, Loeb & Co., J. P. Morgan & Co., the National City Bank of New York, and the First National Bank. The firms and banks interested in the Pan-American plan were the National City Bank, J. P. Morgan & Co., Speyer & Co., Kuhn, Loeb & Co., and others. And last month also \$24,000,000 was raised for the Mexican Railways by a group of underwriting houses not usually associated,—Kuhn, Loeb & Co., Speyer & Co., Ladenburg, Thalmann & Co., and Hallgarten & Co. Very diverse railroad and other enterprises are represented above.

The meaning of “American money abroad” is wider than possible profits to the participants. In China, for instance, Willard Straight, former United States Consul-General at Mukden, is examining for the syndicate not only the particular “loan” in question, but the opportunities for the investment of American capital in Chinese railroad and other enterprises and for the American manufacturer and trader. The hold of Continental business men on the Oriental customer hangs essentially on the interest taken in Oriental enterprise by concerted groups of French, English, and German bankers.

The “Chinese Syndicate,” for example, was making it a condition that one-fourth the engineers of the railroad to be built from

the new loan should be Americans; and that American machinery and supplies should be duly represented.

AT LEAST AN AVERAGE CROP.

JULY is the critical crop month. An accident like hot winds over the corn belt has often defeated the keenest business calculations. How much a fraction of a "crop per cent." means to the country's trade can be figured from the estimated total wealth to come out of the ground this year,—eight billion dollars or more.

The only "banner crop" for 1909 will be corn. If the estimate of three billion bushels is reached, here alone is the stupendous sum of \$2,000,000,000 for the American farmer.

Cotton, the backbone of our export trade (two-thirds of it is sent abroad), seems better than expected. The first Government report of the season appeared June 4 and was interpreted as indicating some thirteen million bales,—about the average,—although the acreage was 4.4 per cent. less than last year.

Wheats, oats, and barley combined will be the largest within five years, according to the Government figures of June. The actual acreage of wheat will be the lowest but one in that period, but the yield is counted at the highest but one, with prices bringing the farmer an average of perhaps 98 cents a bushel,—since the outlook is for a shortage in other wheat growing countries. The winter and spring crops may add up to \$690,000,000 in wheat alone (farm prices).

MORE DEMAND FOR "CASH."

TRUSTWORTHY foreign observers, discussing gold exchanges between the nations last month, referred to the "active demand for money in the States next autumn" very confidently.

"Cheap money" is less of a blessing than it sounds. When a speculator can borrow at 2 per cent. the funds that will enable him to "carry" stocks he cannot pay for,—yielding 4 or 5 or 6 per cent.,—he is obviously tempted along a path that means danger, not only to himself, but to others. The sensational campaign in wheat would have been more difficult to engineer had not the banks been crowded with funds to be loaned on almost anything at almost any price. And, of course, money at 2 per cent. in the bank

is an eyesore to the man who would rather have it at 6 per cent. in his business,—if he dared.

During last month, of course, as in most Junes, rates had to be advanced by the banks in view of the \$200,000,000 or so of cash needed July 1 to pay dividends and interest to holders of American stocks and bonds. It is hard to see how "time money" can go much lower this summer. Practically the lowest ever recorded for six months' commercial bills is the 3½ per cent. basis, which was obtaining in New York the second week of June.

Even at this small profit the loans of the national banks are at their highest in history. And "new money," or bank notes, is being created at the rate of \$12,000,000 a month. New corporations are borrowing enormously. Last month New York City took \$40,000,000 in one loan. The Government will probably ask many millions for the Panama canal this summer. Meanwhile the shipments of gold, the only international basis for money, continue.

With a crop a little above the average, and bringing nearly famine prices, there will be a record-breaking sum needed to move the wheat and corn and cotton.

The clearest sign is the action of the canniest bankers themselves, here and abroad. They prefer to lend money on *short time*.

THE POOR MAN'S BANK.

WHETHER "poor people,"—meaning that vast majority of the population that ought to save some of its money,—really need a Government postal savings bank or not is a question now being fiercely fought.

In the affirmative is the Republican party platform, and also many expert and impartial public men. There is the American Bankers' Association decidedly in the negative. Meanwhile, the "poor man" could settle the question himself by a few minutes' study of what a savings bank is and by his refusal to deposit in any bank that does not treat savings as trust funds, instead of the ordinary commercial accounts.

The open facts are that the savings banks reporting as such to the Controller of the Currency are only 1453 in number. These are obviously inadequate to a country with nearly ninety million inhabitants. The Bankers' Association has recently replied, however, with figures to show that there may be added

about 15,000 State banks, trust companies, private banks, etc., not reporting to the Controller, together with the *savings departments* of 2011 National banks. Including these, the amount of savings grows from \$3,600,000 to \$5,500,000. If there may be added the building and loan associations, 5459, and the life insurance companies, 827 in number, the country's savings can be calculated at \$9,466,411,488,—an average for every American man, woman, and child of \$118, nearly three times what the Controller's report would indicate.

WHAT ALL THESE FIGURES MEAN.

The trouble with these figures lies in their implication that a deposit in anything called "building and loan association," "national bank," "State bank," "trust company" is a proper disposition of savings.

Such institutions are essential to the country's development. Thousands of them may be, and a number, known to the writer, actually have been run with enough care to safeguard hard-earned pennies and dollars. But they have got to stand on their personal and individual merits. There is nothing in their names that carries such a safeguard as the words "savings bank" over any institution empowered to bear that title by the legislatures of States like New York, New Jersey, and the New England States, Indiana, Wisconsin, Minnesota, and a few others. For in these States the savings bank is made what it ought to be,—a disinterested or "mutual" institution.

No savings bank in New York, for instance, makes money for any one but its depositors. There are no stockholders and there are no profits. There is no risky personal "paper" held,—no stocks or speculative underwritings. Whatever the bank can earn through the purchase of sound railroad and municipal bonds, mortgages, and so on permitted by the rigorous State laws is returned to the depositors in the form of interest. Last year there was more than \$50,000,000 so returned; and less than \$5,000,000 was taken out for expenses. Of every dollar earned by the bank the *depositor* got more than ninety cents! There were no failures in New York last year. There have been no failures in New York since the passage of the present law,—1892.

Of the 1453 savings institutions, 137 are in New York, and every one of these is "mutual."

As soon as voters learn that a gilded sign

entitled "Savings Department," hung in a bank which places its depositors' money in speculative schemes, does not make that money one whit safer,—that savings, to quote Pierre Jay, banking commissioner of Massachusetts, "are trust funds and should be invested accordingly,"—it will not be long before prominent and trustworthy men in every important community of the United States are organizing mutual savings banks. Money placed in these banks need not be, even temporarily, carried away from the district where it has been earned,—to cite one objection widely urged against the "postal" plan.

"WATER BONDS."—No. 1.

ONLY two or three years ago the word "irrigation" suggested Egypt, or something else foreign, when spoken in most of the Eastern and Middle States and the large cities. Outside of certain localities "irrigation bonds" were little known.

How the melting-snow streams of the Sierras and the Rockies have been made to play Good Fairy to the sun-baked plains of Colorado, Wyoming, Idaho, and the other arid States; how the soil so rich in lime, phosphorus, and potash has blossomed between the little ditches radiating from some great irrigation reservoir; how last year's desert now produces \$300 an acre in strawberries, or \$2.50 Rocky Ford cantaloupes, or \$1000 an acre of choice fruit; how the more than \$143,000,000 farm products of Colorado, for instance, are mostly grown on irrigated land,—such reports the magazines have recently been spreading.

Peculiarly interesting, too, is the financial side. Irrigation bonds are offered in \$100 and \$500, as well as the usual \$1000, and by the nature of the case, being paid off by the farmers' annual "water dues," part of each issue comes due every year, usually ten years in all. The purchaser can get 5 to 7 per cent. on his money. Here are unusual attractions. And among the proper kind of irrigation bonds there is also a high record of safety.

First are the municipal irrigation district bonds. These are paid by taxes raised through the County Treasurer's office, and can be considered just as any other municipal obligation.

The two other classes of corporations are those watering private lands and those operating under the Carey Act, which for the past fifteen years has provided for proper

federal and State supervision in reclamation.

Dealers in the Middle West can furnish surprising records of safety for properly selected bonds even of these two kinds. Firms can be found that have dealt in scores of different issues, from a dozen States, ever since the Carey Act was passed,—and which announce that no investor through them has lost a dollar.

The problem is not only one of business judgment which any successful banker requires, but also of very complicated "water rights," known to few Eastern lawyers.

With the Carey Act bonds, for instance, after the State Engineer, State Land Board, and the Secretary of the Interior at Washington have approved of the project, the settler pays 10 per cent. down and then gives a mortgage on the water right and on his equity in the land to secure the remaining payment. It is these contracts which furnish the security against the bonds. If correct, and if the proposition is a good one, the security has been ample.

When the bond is against lands privately owned it is usually a mortgage lien on all of the water company's property, and also on the land to be irrigated. A bond can be found of \$1000 value, for instance, against which are deposited farm mortgages to the value of \$1500, representing money loaned on land worth \$4500. With a project properly planned and conducted, this security leaves a wide margin.

The best bonds of this kind have the advantage over the usual farm mortgage with similar security that they are guaranteed by a large corporation, which must, therefore, see that the mortgagor toes the mark; secondly, that they are vouched for by some firm which has a reputation to care for; and, finally, that they are only just becoming known to the financial centers, and sell lower as a class than they may in a few years' time.

"WATER BONDS."—No. 2.

"WATER bond," in the older and more thickly settled sections, usually means the obligations of the private corporation operating the local water works.

The tendency to-day is for a municipality to operate its own water works. The investor in a carefully selected water bond, therefore, looks forward to the possibility that some day the city will buy his property and operate it as a public function, like sewers or parks. If the company owning the water

works is influential,—especially if it is a constituent part of a larger holding company, not to be done out of its rights by the wrong kind of politics,—such "taking over" has meant very fair treatment for the bond and stockholders.

"WATER BONDS."—No. 3.

THOMAS A. EDISON was recently found wondering how our great-grandchildren would feel if, as the geologists predict, they are to face a world without coal. Mr. Edison demanded the use of coal only for heat and the perfecting of methods for harnessing not only water-power but also air-power and tide-power.

What has already been done in the generating of electrical power by waterfalls is particularly interesting to the investor. Here is the "hydroelectric" property,—the basis for a third kind of "water bond." Only within four or five years, since economical insulation and transmission have been worked out, have these enterprises become important. They are now springing up rapidly.

In this country, of course, the lines of least resistance are followed,—the sections in the West and South farthest away from tide-water, coal fields, and cheap steam.

Running expenses are far below those of steam. A striking example is at Niagara Falls. Down where the rows of dynamos hum out their 10,000 horsepower apiece, the visitor may find himself alone except for two or three "oilers" or other mechanics. Raw material, of course, costs nothing.

An engineer concerned in the erection of more than 300 plants from Norway to South Africa, Mr. J. Wharton-Boving, is authority for the statement that the expense of maintenance for a water power plant averages only one-third that of steam.

As for the dam and machinery, if they are installed and financed by experienced, trustworthy people, the proposition, from the bondholders' standpoint, is good. The most expensive part of the work,—the tunnel and flumes,—are under water and are built of concrete for all time.

Whether at Niagara Falls or in Mexico, another advantage accrues to the hydroelectric plant. It "makes its own market." Factories spring up because of the power. Illustrating again by Niagara Falls, it is now only ten or fifteen years since the place was visited by tourists alone. Now it is a manufacturing center.

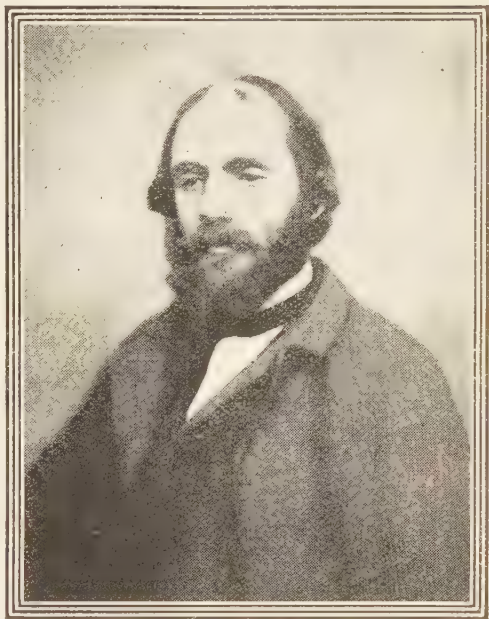
EDWARD EVERETT HALE AS MAN OF LETTERS.

DR. HALE fully expressed his attitude toward literature when he said, on the occasion of his eighty-fifth birthday:

"In my case my vocation first, second, and last is that of a minister of the Gospel. My avocation has been literature. I have always tried to write on subjects of which I knew something, and I have the greatest scorn for what is called literature where the writer throws himself into the field as a fencing master might do, or any soldier of fortune; where the writer knows how to write and has nothing to write about; where, in short, he has nothing to say. But to say what a man has to say, to tell what he has seen, that is the real province of literature."

So completely was Dr. Hale possessed of this guiding principle,—that it is the business of the writer "to say what he has to say, to tell what he has seen,"—that it seems to have been the standard by which he made his literary appraisals. We find him dwelling on this thought in his estimate of his old friend and fellow author, Oliver Wendell Holmes, which we reprint on page 84 of this REVIEW. Dr. Hale was himself a fine example of this theory of literature. Individuality, virility, vigor,—these elements were never lacking in what came from his pen. He at any rate was no "soldier of fortune" on the field of authorship. He wrote only when he had something to say, and if he could reach his public he was content. We may well believe that the outward form of the message was a secondary consideration to him. In his earlier days he made effective use of verse as the vehicle of his thought. One of the few successful ballad-makers that America has produced, he was animated in this form of composition, as in all his writing, by an intense patriotism. "New England's Chevy Chase" was one of his most popular ballads. It voiced the spirit of the American Revolution.

Dr. Hale had a keen interest in history; and if he had chosen to make literature his vocation, instead of his avocation, it is probable that historical studies would have claimed the greater part of his time. As it was, there are many essays in history and biography to his credit, and he did much to popularize such studies, although his disregard of the minor details of historical inquiry made him impatient of some of the accepted methods of the school of dry-as-dust historians. His "Memories of a Hundred Years" is a wonderful series of reminiscences of men and events of national importance. The author's intimate acquaintance with the men and women of whom he writes and with the times in which they lived makes his work unique. In recent years Dr. Hale employed much of his leisure in relating his recollections, and in no way could he have given his friends greater pleasure. His simple, direct, man-to-man style of narration made a vivid impression on the



EDWARD EVERETT HALE.

(As he appeared about the time of writing "The Man Without a Country.")

reader or hearer, and imparted an interest to his reminiscences far beyond the ordinary.

As a short-story writer Dr. Hale achieved a brilliant success long before the modern American short story, now familiarized by the magazines, had won recognition. "The Man Without a Country" was written in 1863 to inspire loyal sentiment in the North at a critical point in the fortunes of the Civil War. It went into many editions, was translated into foreign languages (only last year a Greek version of it was published), and to-day, forty-six years after its first appearance, it is read by thousands of a younger generation. Other favorites are "My Double and How He Undid Me," "In His Name," and "Ten Times One Is Ten." Elsewhere in this number something is said of the world-wide influence of these stories in the formation of clubs among young people for various sorts of altruistic service.

In the long list of novels, histories, essays, short stories, and books of verse which make up Dr. Hale's contribution to literature the following are perhaps the most significant:

"The Man Without a Country," "Ten Times One Is Ten," "Margaret Percival in America," "In His Name," "Mr. Tangier's Vacations," "Mrs. Merriman's Scholars," "His Level Best,"

"The Ingham Papers," "Ups and Downs," "Philip Nolan's Friends," "Fortunes of Rachel," "Four and Five," "Crusoe in New York," "Christmas Eve and Christmas Day," "Christmas in Narragansett," "Our Christmas in a Palace," "Sketches in Christian History," "Kansas and Nebraska," "What Career?" "Boys' Heroes," "The Story of Massachusetts,"

"Sybaris and Other Homes," "For Fifty Years," "A New England Boyhood," "Chautauquan History of the United States," "If Jesus Came to Boston," "Memories of a Hundred Years," "Ralph Waldo Emerson," "We the People," "New England Ballads," "Prayers in the United States Senate," and "Foundation of the Republic."

MEREDITH AND HIS MESSAGE.

IT may be said without exaggeration that for nearly a generation the late George Meredith dominated the world of English letters. He was as truly the last of the Victorian masters of fiction as Swinburne was the last of the Victorian poets.

Passing away at the age of eighty-one, the novelist may be said to have spent half a century in attempting to demonstrate to the readers of English fiction that what count in authorship are: first, philosophy and idealism, and only second the art of the novelist. An appreciative sketch of Mr. Meredith's career,—a particularly quiet and leisurely career,—was printed in this magazine in February of last year, apropos of the novelist's attainment of his eightieth birthday. To this we refer our readers for the details of his literary development. In all, George Meredith published about twenty-five books in prose and verse, and in these he has taken such a grip on the life of his time as few authors in any age have been able to do. It was Meredith's prime distinction that he was able to blend so perfectly the activities of the artist and the seer. Characterizing his literary temper and style, Mr. Lawrence Gilman, writing in *Harper's Weekly*, says that they were marked by largeness, serenity, and penetration of spiritual outlook. To quote:

"A profound and most subtle comprehension of character, an uncanny precision and vividness in the exposition of human complexities, a deep and lovely sense of romance, a bewildering, darting, tireless wit,—these are outstanding traits of his writing as a fictionist. But the chief excellence of his art resides in the marvelous expressional power of the instrument which served his ends. Therein consisted at once his supreme distinction and, for his unwill-

ing or baffled readers, his unforgivable iniquity. The Meredithan style! What anathemas have not been visited upon it, what contemptuous derision has it not withstood! Now there is not the slightest doubt that Meredith is often difficult of approach. He is at times cryptic, forbidding, obscure; and he seldom writes 'smooth'

prose. But it should be said with equal frankness that he demands of his readers an alertness, nimbleness, and swiftness of intelligence that will at least meet half-way his own prodigious agility; and for these the reward is immediate and abundant. His sentences, like Mrs. Mountstuart Jenkinson's, are 'flung out to be apprehended, not dissected.' The art of the pen, he makes Diana say, 'is to rouse the inward vision, instead of laboring with a drop-scene brush, as if it were to the eye . . . that is why the poets, who spring imagination with a word or phrase, paint lasting pictures.'"

Mr. Meredith's first book was a volume of poems, published in 1851. It did not cause any great stir in the literary world, and he seems to have abandoned verse for a time thereafter, for it was eleven years before his second poetical offering to the world appeared. But he had been busy in the field of fiction. In 1856 he published "The Shaving of Shagpat: An Arabian Entertainment," a strange Oriental extravaganza filled with an exuberant fancy. In 1857 appeared "Farina," a graceful little love tale of medieval Cologne. The real beginning of Mr. Meredith's career as a novelist, however, was the publication of "The Ordeal of Richard Feverel: A History of a Father and Son," in 1859. Here was a book which showed that a new master had entered the field of English fiction. It disclosed a mature mind and a practiced hand. It was perhaps the most powerful



GEORGE MEREDITH AT SIXTY.

and at the same time the most artistic English novel of its generation. Its appeal is as fresh and powerful to the reader of to-day.

In 1861 Mr. Meredith published "Evan Harrington," his second novel, which is in every phase of it a remarkable contrast to "The Ordeal of Richard Feverel." The printing of "Modern Love and Other Poems" in 1862 signalled an author as original and remarkable as a poet as he had already shown himself to be as a novelist. His third novel, "Emilia in England," appeared in 1864. He afterward changed its title to "Sandra Belloni" (from the name of its heroine,—Emilia Alessandra Beiloni). This was followed by "Rhoda Fleming" in 1865; "Vittoria" (a sequel to "Sandra Belloni") in 1867; "The Adventures of Harry Richmond" in 1871; "Beauchamp's Career" in 1876; "The Egoist" in 1879; "The Tragic Comedians" in 1880. A third volume of verse, "Poems and Lyrics of the Joy of Earth," came in 1883; the

novel "Diana of the Crossways" in 1885; "Ballads and Poems of Tragic Life" in 1887; "A Reading of Earth," more poems, in 1888; "One of Our Conquerors" in 1890; "Lord Ormont and His Aminta" in 1894, and "The Amazing Marriage," last of the novels, in 1895. In 1895 also were gathered into one volume three novellettes: "The Tale of Chloe," "The House on the Beach," and "The Case of General Ople and Lady Camper," which originally had appeared in the *New Quarterly Magazine* in 1877 and 1879 and had been published serially by the *New York Sun* in 1890. In 1897 was published in a thin little duodecimo "An Essay on Comedy and the Uses of the Comic Spirit," a lecture delivered at the London Institution twenty years before and first printed in the *New Quarterly Magazine* for April, 1877. "Odes in Contribution to the Song of French History" appeared in 1898 and "A Reading of Life, with Other Poems," in 1901.

THE NEW BOOKS.

RECENT VOLUMES OF POETRY.

So used has the reading public become, particularly in this country, to regarding works of fiction and serious discussion and description as the only "books worth while" that it takes some very unusual occurrence to call public attention to the "state of poetry." The past few weeks have partially succeeded in making the English-speaking public remember that poets did and some still do exist. The peaceful death of Swinburne, closely followed by the suicide of John Davidson and the reported relegation to an insane asylum of Arthur Symonds aroused considerable literary discussion in England. "Fleet Street, and Other Poems," which is probably the last work of Davidson, is to be published soon. The volume is a collection of verses dealing with crowds, movements, and wanderers. As for this country, while the rather troubled course of literature has not been much influenced by verse, there have appeared during the past few weeks a few, just a handful, of little volumes of poetry which are worthy of mention.

Some months ago we made brief reference to the publication of the complete poetic works of Richard Watson Gilder. William Dean Howells, who is of Mr. Gilder's day and generation, has given us an exquisite poem which, while neither rhyme nor strictly blank verse, is of the real Victorian flavor. It is entitled "The Mother and the Father,"¹ and it gives in simple, direct, delicately intuitive sentences a description of the three momentous hours in the story of a wife and husband; the birth of their child, the hour of her marriage, and the hour of her death. The range of joy and sorrow in these dramatic passages is set forth in Mr. Howells' own masterly way.

One of the surest of the minor American poets, we think, is Charles Buxton Going, whose verse has appeared with much frequency in the

magazines during the past decade. In his collection entitled "Star-Glow and Song"² there is a good deal of lyric and dramatic fervor.

Much of the sureness of touch and philosophical insight which makes Maurice Hewlett the lineal successor of Meredith appears in the little volume of idylls and songs: "Artemision."³

These verses, we are told, are not new, but are "now first collected."

The translation of the dramatic poem "The Tragedy of Man,"⁴ by the Hungarian poet Imre Madách, by William N. Loew has been both praised and condemned by the literary critics, according as the thought of the original or the style of the translation were chiefly

regarded. There is not, it must be confessed, much poetry in the English version, but a perusal of even a portion of this great poem is worth while for its demonstration of the intellect and genius of the Hungarian people.

"High seriousness" and "fine quality" have been said to be the chief characteristics of Edith Wharton's novels. These also apply to her recently issued collection of verse, entitled "Artemis to Actæon,"⁵—without, however, very much emotional appeal.

A drama of Damascus and the mountains of

² *Star-Glow and Song*. By Charles Buxton Going. Harpers. 204 pp. \$1.20.

³ *Artemision*. By Maurice Hewlett. Scribners. 124 pp. \$1.

⁴ *The Tragedy of Man*. By Imre Madách. New York: The Arcadia Press. 224 pp.

⁵ *Artemis to Actæon*. By Edith Wharton. Scribners. 90 pp. \$1.25.

¹ *The Mother and the Father*. By W. D. Howells. Harpers. 55 pp., ill. \$1.20.



CHARLES B. GOING.

Assyria in the year 1850 B. C., with some evidences of fine psychological insight and some haunting poetry,—these are what make Dr. Henry van Dyke's latest poem, "The House of Rimmon,"¹ attractive, even fascinating, reading.

Volumes of the thorough, scholarly "Cambridge Edition"² of the English poets come with regularity from the Riverside Press. The poetical works of John Dryden is the latest in the series. The text, which has been edited by Dr. George R. Noyes (Harvard), includes all of Dryden's undoubted work except his dramas. There is a frontispiece portrait of the poet and the usual helpful biographical matter and appendices.

Among the other single poems or collections of verse we have received for notice during the past few weeks are: "Poems of Progress and New Thought Pastels," by Ella Wheeler Wilcox (Hammond, Ind.: W. B. Conkley Company); "The Rubāiyyāt of Bridge," by Carolyn Wells (Harpers); and "The Victory," by Annah Robinson Watson, published by the author at Memphis, Tenn.

A FEW OF THE LATEST NOVELS.

Mrs. Humphry Ward's latest novel, "Marriage à la Mode,"³ will be a distinct disappointment to the readers of her other stories. It is really much more a "tract" than a novel, in which the denunciation of American laxity in the matter of marriage and divorce is the main theme and the narrative distinctly subordinate. Daphne Floyd, a beautiful, wealthy, self-confident, proud, and at times fascinating, American girl of mixed foreign ancestry, marries Roger Barnes, an Englishman of Apollo-like attractions, and is afterwards separated from him because of "incompatibility of temper." The story is, in fact, a rather slow-moving discussion of some of the fundamental differences between American and English character and social customs. Although the citizenry of these United States cannot deny the justice of Mrs. Ward's strictures upon our divorce laws, it is somehow impossible to avoid a feeling that the writer has been more than a little unfair and unsympathetic in her entire attitude as set forth in this book toward American life and customs.

There is an impressive, entertainingly put warning in Mrs. Florence Morse Kingsley's latest novel, "The Glass House,"⁴ to American women who contemplate pursuing literature. Edith Loomis, a thoroughly happy wife and mother, is prevailed upon, one unfortunate day,

to attempt to resume a career begun at college as a writer for the magazines. In trying to combine the occupations of mother, housewife, and author she becomes the center of a number of touching and amusing scenes. "The Glass House" is a sympathetic novel, one of

the best, in our opinion, that Mrs. Kingsley has written.

The love and adventure stories by Mr. Robert W. Chambers are always entertaining. "The Special Messenger"⁵ is a stirring tale of the Civil War, maintaining the author's high level of narrative power. The story consists of a series of episodes all concerned with the work of a very lovable and lovely young woman as a special messenger or spy in the service of the Union army.

If Mr. Lloyd Osbourne intended to combine in one character the widely divergent types of the faithful wife and heartless coquette he has not succeeded, at least to the satisfaction of the average reader, in his novel, "Infatuation."⁶ Phyllis Ladd is really two persons in Mr. Osbourne's literary hands, and neither person is very convincing. There are some admirable portions of this story, which has a somewhat worn plot, but occasionally it would seem that the author has tried to sail nearer to the "shores of impurity" than was very necessary or artistic.

More than twenty years ago the reading public in England and America "discovered" Rider Haggard, the author of "King Solomon's Mines" and "She." It was he who first made familiar to the civilized world some of the strange lore of primitive Africa. From that day to this he has written a great deal, but the public persists in refusing to take him seriously save as an interpreter of African folk tales. His new story, "The Lady of the Heavens,"⁷ is woven around the personality of a white girl, the daughter of an English missionary in Zululand. Her parents having been murdered by a native chief, this girl went mad and cursed the tribe. She was then sold to a dwarf people in the interior. Her adventures make up the substance of this weird tale.

HISTORY AND BIOGRAPHY.

Mrs. Schuyler van Rensselaer has written a most interesting history of the City of New York in the seventeenth century.⁸ Of the two volumes, the first is devoted entirely to the

¹ The House of Rimmon. By Henry van Dyke. Scribners. 121 pp., ill. \$1.

² The Poetical Works of John Dryden. Edited by George R. Noyes. Houghton Mifflin Company. 1054 pp. \$3.

³ Marriage à la Mode. By Mrs. Humphry Ward. Doubleday, Page & Co. 324 pp., ill. \$1.20.

⁴ The Glass House. By Florence Morse Kingsley. Dodd, Mead & Co. 312 pp., ill. \$1.50.

⁵ The Special Messenger. By Robert W. Chambers. Appletons. 260 pp., ill. \$1.50.

⁶ Infatuation. By Lloyd Osbourne. Bobbs-Merrill. 380 pp., ill. \$1.50.

⁷ The Lady of the Heavens. By H. Rider Haggard. New York: Frank F. Lovell Company. 342 pp. \$1.50.

⁸ History of the City of New York in the Seventeenth Century. By Mrs. Schuyler van Rensselaer. Macmillan. 2 vols. 1173 pp., with maps. \$5.



FLORENCE MORSE
KINGSLEY.



MRS. HUMPHRY
WARD.

Dutch settlement of New Amsterdam and the second to the history of New York under the Stuarts. It is a curious fact that but little serious study has been given by Americans to the records of the Dutch colony of New Amsterdam. Most of us have been content with the humorous account given by Washington Irving in his "Knickerbocker History." There would have been no harm in this had we been familiar with the genuine history of New Amsterdam, but it certainly is unfortunate that a book written merely as a jest has given generations of readers almost their only conception of New York's humble beginnings. Mrs. Van Rensselaer's illuminating work should go far to counteract such misconceptions as have been perpetuated from Irving's day to this. While these two volumes are complete in themselves, it is the author's purpose to follow them with others which will cover the later colonial and revolutionary periods.

The increasing consciousness of imperial unity is one of the strongest evidences that Britain realizes the position she occupies in the world as an object of the envy and hostility of other nations. Publications, periodical and in book form, in many thousands of copies, come from British presses every year with the sole object of intensifying this idea of imperial unity. Among the most ambitious of these on systematic plan are the publications of the League of the Empire. This organization has recently brought out a work attempting to give in a purely expository, informational way all the facts about the "past, present, and future of the British Empire."¹ This volume, which claims to have a primarily educational purpose, seems to be very thoroughly done, and the spirit maintained throughout is calm and fair. Col. George F. Denison's reminiscences, which the Macmillans have brought out under the title of "The Struggle for Imperial Unity,"² are more argumentative in character. Colonel Denison is president of the British Empire League in Canada.

Great literary men do not as a rule reveal themselves in the best of lights through their love letters. Some of the tender courtship epistles of poets and novelists are, of course, the most artistic and dignified beautiful writings of which we have any knowledge. As a rule, however, in sending their love messages the great men appear to have relied, if they thought of the matter at all, too much upon the assumption that these letters would always remain hidden from public view. The general reader is impressed with the truth of these preliminary remarks after perusing even a small



ROBERT W. CHAMBERS.

portion of the collection of "Love Letters of Famous Poets and Novelists,"³ in which Lionel Strachey and Walter Littlefield have included some 170 epistles selected from the authentic correspondence of seventeen literary celebrities with their spouses, sweethearts, or more secret innamoratas. The letter writers include Byron, Hugo, Pope, Burns, Schiller, Lytton, Keats, Goethe, Poe, Balzac, George Sand, Scott, Lamartine, and Mérimée.

The Italian historian, Prof. Guglielmo Ferrero, whose monumental history, "The Greatness and Decline of Rome," has already been noticed in these pages, made an extended tour last year of the North and South American continents, delivering lectures before learned bodies and in the large cities. Americans will remember with particular interest his addresses (most of them forming the Lowell lectures of 1908) on "The Theory of Corruption in Roman History," "The Legend of Antony and Cleopatra," and "Wine in Roman History." He has now remodeled these lectures into consecutive form, adding material to form additional papers on "Nero," "Julia and Tiberias," "The Social Development of the Roman Empire," and "Roman History and Modern Education." These make up the book just published, entitled "Characters and Events of Roman History from Cæsar to Nero."⁴ The translation is by Frances Lance Ferrero and is very smoothly done.

A continuation of the late Jeremiah Curtin's work, "The Mongols," already noticed in these pages, has come from the press of Little, Brown. It is entitled "The Mongols in Russia," and takes up the story of the domination of this race in Russia after their expulsion from China by the founders of the Ming dynasty. In this volume Mr. Curtin has described the Mongol invasion of Russia, their breaking down of the Russian defense, and their crushing of Russian opposition until the year 1505, when the Horde was broken up by the combined might of the west. An introductory note declares that in its preparation Mr. Curtin made four journeys, to Russia and one to the Orient, the latter to study the chronicles of Persia and China.

An eminently successful biography,—a literary biography, the author calls it,—of "John Keats"⁵ (Houghton, Mifflin),—has just been completed by Albert E. Hancock, professor of English at Haverford College. Professor Hancock is thoroughly well informed, fully conversant with all the latest scholarship pertaining to Keats, and he writes with vivacity and enthusiasm. He has endeavored, he tells us in his preface, to select the significant moments in the poet's life and "make him live, in a world of good cheer and vexation, as a vivid reality." The place of the poet in the social and political development of his day is graphically indicated.

³ Love Letters of Famous Poets and Novelists. Edited by Lionel Strachey and Walter Littlefield. New York: John McBride Company. 340 pp. \$2.

⁴ Characters and Events of Roman History. By Guglielmo Ferrero. Putnam. 275 pp. \$2.50.

⁵ Mongols in Russia. By Jeremiah Curtin. Little, Brown & Co. 481 pp., with map. \$3.

⁶ John Keats: A Literary Biography. By Albert E. Hancock. Houghton Mifflin Company. 234 pp., ill. \$2.

¹ The British Empire: Its Past, Its Present, and Its Future. Edited by A. F. Pollard. London: The League of the Empire. 864 pp. \$1.25.

² The Struggle for Imperial Unity. By Col. George F. Denison. Macmillan. 422 pp., ill. \$2.25.

TRAVEL AND DESCRIPTION.

The curiosity of the West upon the subject of the manner of life of the ladies of the Turkish harem is equaled only by its ignorance of the subject. Now comes Mrs. Kenneth Brown, who writes under her maiden name, Demetra Vaka,¹—for she is a Greek born in Constantinople,—and describes to us the polygamous life of the Turkish woman as it impressed her after some years spent in monogamic America. There are ten chapters, giving as many typical incidents in the life of modern Turkish women, each episode said to be founded on fact and true in every detail. Two things impress the reader of this volume,—the first is a feeling of surprise that these Oriental women appear to be fairly happy and the second is the literary and poetic skill with which this writer has depicted the family life of Constantinople and rural Turkey.

Gen. A. W. Greely is one of the few Americans qualified by virtue of personal experience and observation to write authoritatively concerning the Territory of Alaska.² Dr. Alfred H. Brooks, of the Geological Survey, who contributes to this number of the REVIEW OF REVIEWS an article on the Alaska of to-day, is another of this small group of American travelers and explorers. It was under General Greely's supervision that the Alaskan military telegraph system, over 4000 miles in length, was built. Three times he has traversed the whole Yukon Valley, has twice visited Fairbanks and Prince William Sound, and has made three visits to Nome. The handbook of Alaska and its resources that General Greely has prepared is a work that has long been needed, and any one who has attempted to gather from divers sources the existing data regarding that country has learned to appreciate that need. Moreover, the Alaska of to-day, as the reader of Dr. Brooks' article will quickly discover, is a wholly different country from the Alaska of even one decade ago, and there is no book in print that so fully summarizes the latest facts regarding that wonderful country as does General Greely's handbook.

In the series devoted to American waterways Prof. William Denison Lyman has written an entertaining history and description of the Columbia River.³ It is appropriate that this work should appear, at a time when the scenic features of our far Northwest are attracting more than usual attention. The author has spent a great part of his life in the region of which he writes, his father and mother having been pioneers of 1849. Those parts of the States of Oregon and Washington drained by the Columbia River have had a history by no means lacking in the elements of romance, while the marvelous development of recent years affords sufficient reason for attempting a historical survey of this kind, and among the remarkable features of the Pacific Coast none is more worthy of description than the majestic Columbia River. We advise all visitors to the Seattle fair to familiarize themselves with Mr. Lyman's book.

ECONOMICS, POLITICS, AND SOCIOLOGY.

In view of the current interest in questions of public finance, notably the tariff and the income tax, not to speak of those problems of corporation taxation that are always with us, it is fortunate that so many scholarly books dealing with these matters are just now coming from the press. For a thoughtful discussion of the whole subject of taxation the reader will do well to consult the new volume by David MacGregor Means, entitled "The Methods of Taxation."⁴ This analysis is based on legal rather than economic principles. That is to say, the author undertakes to test the various forms of taxation by principles of justice which are recognized by the courts. Naturally the conclusions that he reaches are distinctly unfavorable to our present methods of taxation, particularly those which depend for their operation on self-assessment by the taxpayer.

A clever and interesting exposition of the single tax is given by C. B. Fillebrown, president of the Massachusetts Single Tax League, in a little book which he calls "The A B C of Taxation."⁵ To make his points the more clear, Mr. Fillebrown gives object-lessons from actual experience in the city of Boston, his objects being to show that an absurd ratio exists between the values of land and buildings, and to give a demonstration of the possible application of the single-tax principle to important Boston thoroughfares.

The widespread interest in the subject of personal insurance has led to a somewhat careful study of the systems of workingmen's insurance and old-age pensions in Continental Europe. For an accurate survey of these systems we are indebted to Mr. Frank W. Lewis, whose book, "State Insurance, a Social and Industrial Need,"⁶ analyzes the most important laws now in force throughout the world, and tabulates the essential data. Until recently this subject has received comparatively little attention in the United States, but the discussion of corporation liability for accidents has directed our thought to the function and duty of the State in the premises.

Prof. James Q. Dealey, of Brown University, has written a useful textbook on "The Development of the State."⁷ It is indicative of the changed conditions in American political life that certain of the topics very properly discussed by Professor Dealey in this book would not have been thought of twenty years ago as having any place in a textbook of the science of government. For example, the direct primary, the referendum and initiative, and the various political innovations of New Zealand are described, and throughout the book there is a noteworthy tendency to tell how the various departments of government actually do their work, rather than to confine the attention to paper constitutions.

Such a tendency is even more marked in Professor Jenks' volume of Columbia University lectures on "Principles of Politics from the

¹ Haremlik. By Demetra Vaka. Houghton Mifflin Company. 275 pp., \$1.25.

² Handbook of Alaska: Its Resources, Products, and Attractions. By Major-Gen. A. W. Greely, U. S. A. Scribners. 280 pp., ill. \$2.

³ The Columbia River. By William Denison Lyman. Putnam. 409 pp., ill. \$3.50.

⁴ The Methods of Taxation. By David MacGregor Means. Dodd, Mead & Co. 380 pp. \$2.50.

⁵ The A, B, C of Taxation. By C. B. Fillebrown. Doubleday, Page & Co. 221 pp. \$1.20.

⁶ State Insurance. By Frank W. Lewis. Houghton Mifflin Company, 233 pp. \$1.25.

⁷ The Development of the State. By James Q. Dealey. Silver, Burdett & Co. 343 pp. \$1.50.

Viewpoint of the American Citizen."¹ In these lectures Professor Jenks made a distinct effort, as he himself says, "to bring into closer touch than is usual the work of the scholar and of the practical man of affairs." To this end Professor Jenks has secured his material from men engaged in the practical work of politics and from his own experience in the observation of political affairs, rather than from books written for the most part by men who have not themselves had practical experience. Thus Professor Jenks treats of the principles of politics in practical operation, and while the theoretical basis of his lectures is sound and well-considered the real value of his conclusions comes from the fact that they have been tested in actual life.

An English essayist, Mr. Graham Wallas, has combined a series of discourses on modern political thought and action under the title "Human Nature in Politics."² This writer's point of view is not unlike that of Professor Jenks. It is illustrated in his comment on Mr. Roosevelt's book of essays on "American Ideals." He thinks this book is useful because when Mr. Roosevelt thinks about Americans in politics he thinks about the politicians whom he has known. After reading it, says this writer, "one feels that many of the more systematic books on politics by American university professors are useless, just because the writers dealt with abstract men, formed on assumptions of which they were unaware and which they had never tested either by experience or by study."

The fourth edition of Mr. Charles A. Conant's "History of Modern Banks of Issue"³ covers important events that have taken place in both banking and political history during the twelve years that have elapsed since the appearance of the first edition. These include, for example, the complete reconstruction of the note-issuing systems of Switzerland, Sweden, and Mexico, and important changes in Russia, Austria-Hungary, Japan, and other countries. Mr. Conant has also extended his discussion of banking development on the side of discount policy and on that of the division of profits between the bank and the state. Mr. Conant has confined the scope of the work to narration, leaving to his other work, "The Principles of Money and Banking," the presentation of his views on the monetary and banking theory.

The final report of the Citizens' Health Committee of San Francisco on the eradication of plague⁴ from the city should have a wide distribution, especially in American seaport cities. An account of the remarkable work carried on in San Francisco under the direction of officers of the United States Marine Hospital Service was published in the REVIEW of REVIEWS for November, 1908. The final report now issued records one of the most encouraging sanitary triumphs of our day. The Citizens' Committee will furnish all foreign consuls and boards of

health in all the large cities of the United States and foreign countries with copies of this valuable report.

Mr. Rudolf Cronau, a well-informed American of German birth, gives in the brief compass of 134 pages an impressive showing of the various ways in which our national resources have been wasted.⁵ Mr. Cronau considers not only the waste of our forest, water, soil, and minerals, but also of our game, fur, and great marine animals, our birds and fishes, and the frightful waste of human lives.

An English geographer, Mr. Vaughan Cornish, in a volume entitled "The Panama Canal and Its Makers"⁶ gives an impartial account of what has been done on the Isthmus, dealing particularly with the problems of engineering and sanitation and the labor difficulties, and deriving from the story certain conclusions as to the future of the white race in the tropics. We observe that Mr. Cornish is particularly wary in his treatment of the lock versus sea-level issue.

The investigation into the cost of living among workmen's families⁷ in New York City, the results of which are now published by the Russell Sage Foundation, had the useful purpose of securing data which may form the basis of more intelligent efforts on the part of charity and relief organizations and individuals engaged in practical measures to cope with poverty and to alleviate distress. The inquiry was conducted by an able corps of workers and the conclusions now published are worthy of full credence.

The city of Washington is one of the last places where the uninitiated would think of organizing a "slumming" expedition.⁸ In the main the city's exterior is fair; the casual visitor never learns that almost under the shadow of the Capitol's great dome are festering alleys where disease, physical and moral, daily claims its victims. Not even in New York are greater extremes of social condition to be found side by side. The lack of industrial employment makes the case of the Washington poor the more hopeless. We are indebted to Mr. Charles F. Weller, for seven years the chief executive officer of the Washington Associated Charities, for a graphic relation of the facts that have been laid bare in the course of his official experiences. Mr. Weller has himself lived in some of the worst tenements that he describes. His effort to do for the national capital what Mr. Jacob Riis did many years ago for New York had the hearty indorsement of President Roosevelt.

Dr. Arthur Shadwell's comparative study of industrial life in England, Germany, and America has been reduced to a single volume and published at a moderate price. This work has had a favorable reception in all three countries, and since the appearance of the first edition, three years ago, it has been honored by a German translation. The three nations of the

¹ Principles of Politics. By Jeremiah W. Jenks. Macmillan. 187 pp. \$2.50.

² Human Nature in Politics. By Graham Wallas. Houghton Mifflin Company. 302 pp. \$1.50.

³ A History of Modern Banks of Issue. By Charles A. Conant. G. P. Putnam's Sons. 751 pp.

⁴ Eradicating Plague from San Francisco. By Frank M. Todd. San Francisco: Citizens Health Committee. 313 pp., ill.

⁵ Our Wasteful Nation. By Rudolf Cronau. New York: Mitchell Kennerley. 134 pp., ill. \$1.

⁶ The Panama Canal and Its Makers. By Vaughan Cornish. Little, Brown & Co. 192 pp., ill. \$1.50.

⁷ The Standard of Living Among Workmen's Families in New York City. By Robert Coit Chapin. New York: Charities Publication Committee. 372 pp. \$2.

⁸ Neglected Neighbors in the National Capital. By Charles F. Weller. Philadelphia: John C. Winston Company. 342 pp., ill. \$1.50.

world which by common consent rank highest in industrial efficiency¹ are here compared, and the deficiencies as well as the successes of each are brought into view. A supplementary chapter makes such additions and corrections as the author has found necessary. The work, on the whole, has been carefully done and the author has shown a disposition to be fair in his methods of investigation and in his discussion of controverted questions.

Dr. Devine has written a most optimistic book² on a topic that in other hands could hardly fail to suggest only pessimistic conclusions. His first-hand study of social conditions in New York City has equipped him with an understanding of the real causes of misery in our modern life, and it has taught him how to present those causes in a way calculated to convince the reader that misery itself will in the long run be reduced through the operation of the laws of social control.

Mr. Morris Hillquit, of New York City, is one of the acknowledged spokesmen of the American Socialist movement. In his new volume on "Socialism in Theory and Practice"³ he summarizes the Socialist philosophy in its bearing on the most important social institutions and problems of our time and gives a condensed account of the history, methods, and achievement of the Socialist movement throughout the world. In the first part of his work he discusses the Socialist philosophy and movement, while the second part is devoted to social reform movements. The Socialist cause is presented with great ability.

A translation of Paul Leroy Beaulieu's work on "Collectivism"⁴ has been made by Sir Arthur Clay, Bart. The original story has been considerably abridged. Most of the principal social problems of the day are discussed by the eminent French economist, whose conclusions are opposed to the modern socialistic propaganda.

AMERICAN AGRICULTURE.

The publication of the fourth volume of the "Cyclopedia of American Agriculture,"⁵ edited by Prof. Liberty H. Bailey, of Cornell, marks the completion of a very important contribution to the literature of farming and farm-life. This work differs from most other publications in the cyclopedia class in that its material is not arranged under an alphabetical system but is grouped logically, each topic being considered in its relation to others and each volume being devoted to a special department of agricultural

practice and science. Thus Volume I considers farms, climates, and soils, covering a general survey of the agricultural regions of North America and including tillage, farm buildings, machinery, treatment of the land, drainage, irrigation, water supply and removal, treatment of the soil, its use and abuse, and generally whatever pertains to the selection, planning, and equipment of the farm. In view of this country's colonial acquisitions the chapter on tropical agriculture is of special interest. The second volume is devoted to the subject of "Farm Crops," including such themes as the improvement of seed by persistent selection and special culture, and the whole subject of diseases and insect pests that affect farm crops and the methods of combating them. Volume III is wholly given up to farm animals, the various breeds, the place they hold in the farm economy, their care, feeding, housing, and general treatment. This includes full discussion of the dairy business, the production and handling of milk and butter. Most interesting of all to the general reader is the fourth volume, whose sub-title is "The Farm and the Community." This volume is necessarily suggestive rather than complete or definitive in its treatment, since this is a field that has heretofore been strangely neglected by the sociologist. A glance at the contents of this volume impresses one with the importance of the human aspects of farm problems as contrasted with the purely industrial. Indeed, the general impression produced by a rapid survey of all four volumes enhances one's respect for the science of agriculture as it has been developed in this country and for the intellectual resourcefulness of those who have taken the lead in this development, notable among whom is the editor of this work.

THE INTERNATIONAL YEAR BOOK.

It is understood that the "New International Year Book"⁶ is to be put on a permanent basis, and, as this is the only work of its kind now published in the United States, such an outcome would be highly desirable. The second volume of the new series, covering the year 1908, has only recently come from the press. It is a résumé of the history, art, science, and literature of the year, and, while useful in connection with any of the standard cyclopedias, it is an independent volume and not merely a supplement. Such topics as the federation in British South Africa and developments in Turkey are clearly summarized, and in the field of American politics the Presidential campaign is described. In the department of agriculture most of the articles have been prepared by members of the scientific staff of the Department of Agriculture at Washington. It is to be hoped that the publishers will feel encouraged to continue and improve this extremely useful publication.

¹ Industrial Efficiency. By Arthur Shadwell. Longmans, Green & Co. 720 pp.

² Misery and Its Causes. By Edward T. Devine. Macmillan. 274 pp. \$1.25.

³ Socialism in Theory and Practice. By Morris Hillquit. Macmillan. 361 pp. \$1.50.

⁴ Collectivism. By Paul Leroy Beaulieu. Dutton. 343 pp. \$3.

⁵ Cyclopedia of American Agriculture. Edited by L. H. Bailey. Macmillan. 4 vols. 2675 pp., ill. \$20.

⁶ The New International Year Book, 1908. Edited by Frank M. Colby. Dodd, Mead. 776 pp., ill. \$5.



The American Review of Reviews.

EDITED BY ALBERT SHAW.

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PRESIDENT TAFT SPEAKING AT FORT TICONDEROGA, JULY 6.

July was an exceedingly busy month for President Taft, and he will have earned his vacation at Beverly. In spite of his incessant duties at Washington, and his responsibilities as umpire in the final shaping of the tariff bill, he found time to participate in several important anniversary celebrations in New York and New England (see page 143), and also to spend a Sunday with his family at the so-called "Summer White House," at Beverly, on Massachusetts Bay. The picture shown above is from a snapshot taken while Mr. Taft was speaking at the Lake Champlain celebration.

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No. 2.

THE PROGRESS OF THE WORLD.

*The
Final Tariff
Bill.*

As these pages were closing for the press the main outlines of the completed tariff revision bill stood out clearly. The Conference Committee of the two Houses had almost finished its work, and it was the generally accepted opinion that the brief final debates upon the report of the Conference Committee would be ended in time to permit the adoption of the bill and the adjournment of the extra session on or before the last day of July. It has been a long and fatiguing session of about four and a half months. There have been many discouraging phases of this Congressional attempt to revise the tariff, but there have also been many things of a hopeful and promising kind; and especially toward the end there was a rapid clearing of the heavy atmosphere. A fresh, invigorating breeze, which seemed to originate at the White House, swept up Pennsylvania Avenue to the great domed structure where the law-making branch of the Government exercises its Constitutional right to vote money out of the Treasury and to find the ways and means by which to bring money in again.

*It Seems
to Be Taft's
Measure.*

Thus in the end it has turned out to be Mr. Taft's bill rather than the Payne bill of the House or the Aldrich bill of the Senate. Yet it would not be fair to say that Mr. Taft had steered the tariff revision in any aggressive sense or in the spirit of encroachment upon the domain of the legislative department. With all his experience as an executive officer and a statesman, Mr. Taft's greatest qualities are those of judge and umpire. He is conspicuous as an exponent of justice, as a harmonizer, and as a finder of the reasonable middle course where compromise involves no sacrifice of principle. From the very beginning of this great effort to overhaul the tar-

iff it has been evident that the Senate would in a great many matters differ from the House, and that the public opinion of the country, regardless of party, although especially within the Republican ranks, would rely upon President Taft to act as arbiter at every point of serious or vital dispute.

*What
Had Been
Promised?*

Nobody expected a revolutionary change in the country's tariff policy. The Republicans were strong in the possession of a large majority in both Houses, and they were supported by the country in their opinion that the Dingley tariff, after a dozen years of operation, had been exceedingly well justified by its results, although it was in need of a vast number of changes of detail on account of the expansion of our industries and the new conditions brought about by time and growth in the business life of the nation. The time must come,—perhaps eight or ten years hence, probably not sooner,—when the whole tariff and revenue system of our national government will be fundamentally overhauled. But at this time there was no intention of changing general policies, and we were not making a new tariff, but were merely revising an old one. As the debate proceeded and as the Senate refused to admit that there was any virtue or any obligation in the direction of lower duties for the mere sake of having them lower, there arose both within Congress and throughout the country the question whether in promising to revise the tariff the Republican party had clearly agreed to make a general reduction in the rates. The country concluded that if this question had to be answered by a simple "yes" or "no" the affirmative would win. Mr. Taft in his speeches, the Republican platforms, and the chief newspapers of the party, while not advocating anything like a horizontal reduction

or a mere scaling down of rates without regard to facts and conditions, had undoubtedly declared that the rates were too high in many schedules and that the effect of revision would be to reduce such rates. It was not, on the other hand, inconsistent with this view to advance the rates on certain articles of luxury, such as champagnes and costly wines; and many of the Senate's increases were in this nature and received the final approval of the conferees and of the two Houses.

*In the
Conference
Stage.*

The Aldrich bill passed the Senate on July 8 and went at once to the joint committee, after the House had adopted the usual course of refusing to accept the Aldrich bill as an amendment by substitution for the Payne bill and had instructed its conferees to support the Payne bill as originally passed. Speaker Cannon had named nine conferees on behalf of the House, six being Republicans and three Democrats. The Republicans were Payne, of New York; Dalzell, of Pennsylvania; McCall, of Massachusetts; Boutell, of Illinois; Calderhead, of Kansas, and Fordney, of Michigan, while the Democrats were Champ Clark, of Missouri; Underwood, of Alabama, and Griggs, of Georgia. The Senate's conferees were eight in number, five being Republicans and three Democrats. The Republicans were Senators Aldrich, Hale, Burrows, Penrose, and Culom, and the Democrats were Senators Money, Daniel, and Bailey. The Senate had made 847 changes in the House bill as against 600 changes that had been made by the Senate a dozen years ago when the Dingley bill went into conference. The conferees spent their first few days in going over matters where differences of opinion were not great and agreement could easily be reached.

*Taft
for Free
Materials.*

In the middle of July a considerable group of members of Congress called upon Mr. Taft to argue with him against putting on the free list such articles as lumber, iron ore, hides, coal, and other so-called raw materials. It will be remembered that the House had, generally speaking, removed the tariff from such articles and that the Aldrich bill had to a considerable extent restored the present Dingley rates. The members of Congress who went to Mr. Taft were avowedly speaking for some article produced in their respective States and were not pretending to take a broad national view. Mr. Taft him-

self made public a statement regarding this interview and made clear his position as favoring in a general way an approximation toward free raw materials. He was careful not to commit himself to free raw materials as a principle, and in that respect he was wise. But he took the view that there were practical grounds for low rates, if any, on ore, hides, oil, coal, and lumber, and his judgment as umpire carried public opinion, beyond a doubt. Mr. Payne and the House conferees were with the President, and Senator Aldrich professed his readiness to yield if the President could find the votes to adopt a conference report providing for practically free raw materials. Mr. Taft accordingly undertook to find the votes, and his good-tempered and conciliatory but firm and convinced tone seemed to promise success. In the White House statement of the 16th Mr. Taft had said:

If iron ore and coal and hides did not need protection and the conditions were such as to enable the ore producers and the oil producers and the coal producers and the producers of hides to compete successfully, without reduction of wages, with the producers from abroad, then they did not need a duty and their articles should go on the free list.



AGAINST THE RULE.

"And it followed her to school one day,
Which was against the rule."

"Mary had a little lamb, that followed her one day;
But Mr. Aldrich has fifty lambs that follow him
every day."

—Senator Gore.

From the American (New York).

LAST DAYS OF THE SHOW.—From the *Herald* (New York).

Each
Case on Its
Merits.

Each of these articles should be dealt with upon its own merits.

In our judgment the Dingley rates were too high on the articles mentioned above, but there are many reasons why it would be just and beneficial to charge at least a low revenue rate upon every bulky commodity that comes into the country. Take, for example, the case of iron ore. In one way or in another the principal ore beds of the United States will be taxed pretty heavily and their owners will be compelled to support the local and national institutions which make this country a favorable market for commodities. Why, then, should the deposits of Cuban iron ore, or those of other foreign countries, be brought into the United States without contributing anything at all, even toward the maintenance of the harbors that they enter? In the case of iron ore there is no need of a prohibitive tariff nor of a protective one; but a low tariff for revenue purposes would be fair and desirable. In the case of hides, we are in any case obliged to import a considerable portion of those

used by the leather industries of the United States, because enough are not produced in this country. Free hides would not hurt the American cattle-raiser or farmer; but, on the other hand, a small tax on imported hides would hurt nobody in this country and would yield a reasonable contribution toward the national income. The Dingley rate on common lumber and some other wood products is much too high, but the retention of a small tax on lumber can be defended by sound arguments. If wood pulp and print paper had not been subjected in this country to monopolistic control there could be no good reason for opposing a small revenue tax on their importation from Canada and elsewhere. As matters stand, wood pulp and print paper are not very good subjects of custom-house taxation. Mr. Taft's general view that hides, lumber, coal, iron ore, and the like should be admitted at greatly reduced rates is undoubtedly in accord with the prevailing opinion of those who are not conscious of being dominated by private views, and who are therefore exercising their

judgment from the standpoint of the public welfare. The verdict is almost unanimous.

*As to
Protective
Rates.*

As respects certain articles of common use, notably the cheaper kinds of gloves and hosiery worn by women and children, it will be remembered that the framers of the House bill were led to believe that American manufacturers would be benefited and that American consumers in the end would also derive advantages from an increase in the rates. The country as a whole protested stoutly against this view, and the Senate, with Mr. Taft's concurrence, will doubtless have prevailed, with the result of keeping the glove and hosiery schedules substantially what they have been under the Dingley tariff. The iron and steel schedules, and those relating to other metallic manufactures, will in the final bill have shown a considerable revision downward. In the next number of this REVIEW it will be possible to state accurately in a general way what has been done with the great schedules relating to cotton and woolen manufactures, crockery and glass, metallic articles of various sorts, and the other important schedules. Speaking at large, however, it will be found that the new tariff is an improvement over the Dingley law in a great many important items, while in some of the more complicated schedules, such as those relating to textiles, a thorough overhauling must await the more mature and scientific methods of study and treatment that are bound to come with the creation of some form of tariff commission or bureau.

*The High
Tax on
Decent Clothes.*

Probably the most indefensible of all the schedules is that relating to wool and woolen goods. It does not so much concern those who buy high-priced clothing as it does the masses of the people who by the present arrangement of duties on the lower grades of wool are compelled to wear suits made of inferior material. The situation had become so serious in this respect that the National Clothiers' Association, which had formerly thought it politic not to be mixed up in tariff disputes, took a bold stand in the recent discussion and threw much light upon the facts. The clothiers' association is headed by men of public spirit and broad views, who are entirely friendly to American textile manufactures, and who hold no brief for importers as such, but who have had to deal with a steady deterioration in the cloth worn by the

plain American people and who now feel it their duty to make protest and enter the fight. They have the assistance in this matter of their able new secretary, Mr. William R. Corwine, who has been identified with other important commercial bodies and has expert knowledge of the tariff. Senators Dolliver and La Follette, on the Republican side, and Senator Gore and others, on the Democratic side, did not allow the textile schedules to pass the Senate without strong protests in speeches that impressed the whole country. On the final vote ten Republican Senators joined twenty-three Democrats in voting for the amendments to the wool schedule that Senators La Follette and Dolliver had supported. If, as was hoped, the bill on its final passage shall have included a provision for a tariff bureau with experts appointed by the President, there will be some reason to expect such a study of the wool and textile schedules as will eventually lead to reform. President Taft would undoubtedly have been glad to see these schedules reformed in the present measure, but his influence did not extend so far.

*The
Tax on
Corporations.*

The President's plan of a corporation tax was evidently destined to be accepted almost without opposition. It reached a vote in the Senate on July 2 and was passed by an affirmative vote of fifty-nine, with only eleven votes against it. Three Democrats voted in the negative and eight Republicans. Nearly all of the Republicans who voted against it belonged to the so-called insurgent or radical wing, who preferred an income tax and who, although willing enough to tax the great corporations, did not wish to accept the proposal as a substitute for their more sweeping plan of levying a tax upon all large incomes. Senator Cummins and his friends will at least be entitled to the credit of having secured action by Congress which will result in the submission to the States of a proposal to so amend the Constitution as to confer upon Congress the full and unquestioned power to levy an income tax.

*Character
of This
New Impost.*

As finally accepted by the Conference Committee, the corporation tax will be at the rate of 1 per cent. upon the net income of all business corporations. Excepted are those that have a net income of less than \$5000 a year and certain classes of corporations whose primary object is not money-making. As finally



Photograph by the Pictorial News Co.
SENATOR ROOT, OF NEW YORK, WHO CARRIED THE CORPORATION
TAX MEASURE THROUGH THE SENATE.

(This picture represents Mr. Root speaking at Plattsburg, N. Y., July 7, on occasion of the Champlain celebration. President Taft and Governor Hughes are seen on the left.)

shaped and adopted, this tax is inconsistent from the theoretical standpoint and open to some serious objections on the practical side. In point of theory, it is said by its inventors to be in the nature of an excise tax levied upon corporations as such, because corporations enjoy certain privileges and advantages that partnerships and private firms do not possess. But if this theoretical or legal point is the real basis of the impost, there can be no just ground for exempting from the burden of the tax all those corporations which, though enjoying the full privileges of the corporation laws, do not show on their balance sheets a net profit. It would be easy to find hundreds of instances in which two neighboring corporations having similar capitalization, similar opportunities, and perhaps even similar amounts of gross income have very different net earnings. Through different policies, or different methods of management, the one corporation yields a large net income and pays dividends, while the other seems not to be producing any net income at all and pays no dividends. Yet in reality the one is just as able to pay taxes as the other. There

is no reason why the general conditions under which these two rival institutions do business should be made unlike by the taxing power. Taxation should be in the nature of one of the fundamental expenses of both of the competing corporations.

As to "Holding Companies," If the corporation tax is to be based at all upon income, it should be upon the gross receipts rather than upon that very uncertain and elusive quantity known as "net profits." We are not speaking now of the exemption of private firms and partnerships, but are discussing the corporation tax upon the theory of its framers that it is a tax upon the privilege of doing business in the corporate or joint-stock way. When the tax was under discussion in the Senate an amendment was proposed by Senator Clapp, of Minnesota, taxing the net incomes of so-called "holding companies," and it was adopted. The question at issue was whether if a railroad company, for example, was taxed upon its net income there should also be a tax levied upon the net income of a company holding the

stock of that railway, regardless of what the original company had paid. The question was raised whether or not this was to be regarded as "double taxation" and therefore wrong. Mr. Clapp's Senate amendment was afterward rejected in the Conference Committee. Yet Mr. Clapp was obviously right. For in neither case is the tax levied upon a company's stock, but on its net income; and it is absurd to attempt to trace from one company to another the particular kind of property from which the income is derived.

*Certainly They
Should Pay
the Tax.*

Most certainly the holding companies,—which above all others are benefited by the peculiar privileges of incorporation,—ought to be taxed on the same principles as any other companies. And if, in progressive order,—as in fact has come to be the case in some instances, such as in the case of the New York traction companies,—there should be still further holding companies removed by two or three or four degrees from the original business, then each successive company should be taxed upon its income quite regardless of the source from which that income is derived. It is almost as ridiculous to exempt holding companies as it would be to try to create a partial exemption for a furniture manufacturing company on the ground that its materials had already been once taxed at the hands of a lumber company, which in turn might claim exemption on the ground that the timber had previously been taxed at the hands of a land company.

*Hardship for
the Small
Concerns.*

The corporation tax will not bear very painfully upon those very large companies whose stocks are listed and bought and sold in the markets. They can easily pay the tax and recoup themselves; and many of them will doubtless be very glad to procure the recognition of the federal government in this indirect fashion. But it would seem probable that in its practical working the tax might prove both burdensome and inequitable to the smaller and more local business enterprises of the country, which by scores of thousands have taken on the form of corporations. Such corporations do not need federal inspection or regulation, nor ought they to be subjected to a special federal tax, which in their cases is merely a tax on care, thrift, and prudence in the conduct of their business. As an entering wedge for the federal regulation and control of the large industrial corporations of

the country, this tax may prove to be very important and in the end highly beneficial. But it is not difficult to predict that it will have to evolve into something quite different from its present form. It will be impossible to make it bear equitably upon those who should pay it. However, time will bring it to judgment and its defects can be remedied.

*How
It
Happened.*

Its coming into being is one of the most remarkable of recent legislative events. It was not discussed during the campaign, it was not mentioned in President Taft's inaugural, it was not proposed in the compact and deliberate program laid down by the President in his message at the opening of the special session, nor was it brought forward as any part of the pending revenue measure by any member of Congress. Congressman Stevens, of Minnesota, had, indeed, been working upon a plan of a small income tax on corporations, the proceeds to be set aside as a fund for internal waterways pending a decision of the courts as to its constitutionality. But this plan, it was carefully explained, was quite apart from any program for the raising of revenue to meet the regular expenses of the Government. Mr. Taft in his messages to Congress proposed a tax on inheritances in addition to the customs duties and the internal revenue taxes. This proposition was accepted by the House and embodied in the Payne bill. When the Senate was more than two-thirds through with its work and it seemed probable that the coalition in favor of an income tax formed by Senator Cummins and Senator Bailey might be successful, President Taft sent in a special message proposing a 2 per cent. tax on the net earnings of corporations as a substitute for the inheritance tax on one hand and for the income tax on the other. He endeavored to placate the income-tax leaders by commending the plan of an income-tax amendment to the Constitution. In the Senate, the corporation tax was taken up by the leaders as a parliamentary club with which to kill off the Cummins-Bailey income-tax amendment. Great opposition to the inheritance tax had developed because the States were very generally adopting that form of tax and felt that the Federal Government should not enter that field. Nobody seemed ardent for the corporation tax, but it was accepted by a great many Senators as an unwelcome substitute for something that they disliked more intensely. They thought it a choice of evils.



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HON. GEORGE W. WICKERSHAM, ATTORNEY-GENERAL OF THE UNITED STATES.

(Mr. Wickersham, of all the Cabinet, is having the busiest summer. Last month, besides heavy duties at Washington, he addressed the Kentucky Bar Association on an important subject in corporation law reform, and the Department of Justice has much pressing work on hand.)

Even in this case it could hardly have made its way but for the shining talents of two great lawyers who came to the President's support. One of these was Mr. Wickersham, the Attorney-General, and the other was Senator Root, of New York. As originally proposed, the corporation tax was merely a clever and ingenious conception. To put it into the form of a statute that had even the semblance of workability, and that could be made to fit into precedents and court decisions, as well as into the general scheme of revenue and finance, was a difficult task that devolved chiefly upon the Attorney-General. However the law may work in the end, Mr. Wickersham's abilities have been clearly demonstrated. It devolved upon Senator

*Its
Legal
Sponsors.*

Root to expound the measure to the Senate and to carry it to its passage, Senator Aldrich having turned that matter over wholly to Mr. Root's leadership. When finally the corporation tax was accepted by the Conference Committee on July 19 it was after Mr. Wickersham and Mr. Root had been called in to explain it point by point. The original proposal of a 2 per cent. tax was changed to 1 per cent. This reduction was with Mr. Taft's approval in view of the prospect of a larger revenue than was originally expected from some other sources.

*Increasing
Tobacco
Taxes.*

This enlarged revenue will come in particular from an increase in the taxes on tobacco, by virtue of which perhaps \$15,000,000 above present receipts will be collected. This result will have been due entirely to the work of Senator Beveridge, of Indiana, whose exposition of the history of the tobacco taxes was the one conspicuously strong piece of purely budgetary analysis and argument made during the entire session in either House. Not to go into minute details, the tobacco taxes are increased as a result of Mr. Beveridge's work in the Senate from six cents to eight cents a pound on tobacco in ordinary packages, and on snuff, while the readjustment of the tax on cigarettes will, it is hoped, practically exterminate some of the most pernicious grades, the tax on cigars being so changed as to leave the cheap grades at present rates, while sharply increasing the rates on the high-priced qualities.

*The People
Are for the
"Insurgents."*

It is greatly to be regretted that a stronger support was not given to those Senators who made the fight for decent rates on textiles with a view to the cost to the plain people of their clothing, hats, and shoes. The so-called "insurgent" Senators, a group of ten, will not have lost any credit with their constituents for having made an able and conscientious effort to secure a more thoroughgoing tariff reform. Senator Beveridge, who was the strategist and tactician of the reform movement, received an almost unprecedented ovation at Indianapolis on the occasion of a visit to his home city in the middle of July. Senator Dolliver was not only never so strong in his home State, but was never one-tenth as strong with the Republican party throughout the country as now at the conclusion of his attack upon the iniquities of the textile schedules. Senator Cummins, as a consistent

advocate of tariff reform for years past, is not in a minority with the Republican masses, however he may stand with the controlling wing of the Senate. Mr. La Follette may seem a stormy petrel and an agitator to some of his colleagues, but he is a fighter of long experience and nothing daunts him. Mr. Nelson and Mr. Clapp, of Minnesota, have won plaudits not merely at home but with the whole party. The ten Republican Senators who voted against the Aldrich bill on its final passage were as follows: Beveridge, of Indiana; Bristow, of Kansas; Brown and Burkett, of Nebraska; Clapp, of Minnesota; Crawford, of South Dakota; Cummins and Dolliver, of Iowa; La Follette, of Wisconsin, and Nelson, of Minnesota.

*At Least a
Step Towards
Reform.*

As the bill was in conference, some of these progressive Senators were quite uncertain whether or not they would vote for the bill on its final passage. They realized that President Taft was doing what he could to make the bill responsive to party promises and to the country's demands. But they also felt that the bill as it seemed destined to come out of conference was far short of the kind of tariff revision that it was reasonable to have expected. In general, the House and the President were working together. It was intimated that if the conference report approved by the President were adopted by the House and not accepted by the Senate, Mr. Taft would at once call another extra session, the result of which would undoubtedly be a more thoroughgoing revision in the end. It seemed probable that the conference would report a bill better on the average than the present Dingley law; and, if the tariff-commission plan should come successfully through conference, it was felt that the sum total of the work of the session had better be accepted as an initial step toward the real tariff reform that must come in the future. There seemed danger as the bill went through conference that the demand for free raw materials might obscure the much more important demand for a revision in the textile schedules and some other of the high protective rates. But the public did not quite grasp the fact that the work of the Conference Committee was practically confined to dealing with differences between the Payne bill and the Aldrich bill, and that it could not at this late stage of the proceedings overhaul high rates which had been written into both of these bills. A good



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SENATOR BEVERIDGE, OF INDIANA, WHOSE POSITION ON THE TARIFF WAS SUSTAINED BY HIS CONSTITUENTS IN AN UNPRECEDENTED OVATION AT INDIANAPOLIS LAST MONTH.

tariff commission, investigating under the President's direction, can do a great deal in future to help reform the worst remaining parts of our elaborate protective tariff. The climax of the conference work and of the President's successful mediation came with Mr. Taft's dinner to all the conferees and

the two presiding officers of Congress, on the night of July 21.

*Charles R.
Crane for
China.*

Mr. Taft and Mr. Knox have been more concerned about the appointment of a minister to China than about any other post in the en-



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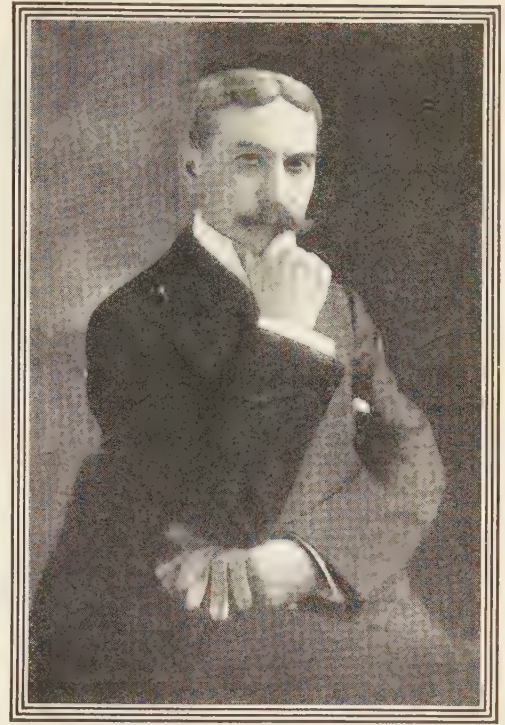
MR. CHARLES R. CRANE, OF CHICAGO, OUR NEW MINISTER TO CHINA

(From a photo made for the REVIEW OF REVIEWS July 21 by Paul Thompson, of New York.)

tire diplomatic field. Our ambassadors in Europe have little to do except to represent us creditably. In order that they may do this they ought to be provided by the Government with permanent embassy buildings, so that everybody may know where to find the flag of the United States flying in London, Paris, Berlin, St. Petersburg, Vienna, and Rome. A determined movement is on foot to bring this object to an early realization. At Constantinople, where Ambassador Straus is to enter upon his duties for the third time, there is always a good deal of discretionary business for which a diplomat must

assume responsibility. The post at London is one of great honor, but all questions of difference between the United States and the British Empire are threshed out at Washington by the Secretary of State and the British Ambassador. The great and commanding opportunity for an American diplomat at the present time is in China. The position of the United States in the Far East needs to be strongly asserted. Our Government for years past has shown itself China's best friend. We have stood for the territorial integrity of China, for its commercial opportunities, and for an honorable treat-

ment in the matter of the excessive indemnity exacted from China after the Boxer uprising. Mr. Taft, who knows the Far East well from residence and repeated visits, realizes that the moment has arrived for sending to Peking a minister who will know how to promote every phase of our increasing relationship with the Chinese Empire. On July 16 it was announced that the President had found the man he wanted in Mr. Charles R. Crane, of Chicago, who had accepted the offer and was prepared to go at an early day. Mr. Crane has not been in public life, but he is one of the best known of Americans. He has long been associated with his father in large business operations which have taken him abroad many times, and he has made it his business to know thoroughly not only the political and industrial conditions of Europe but also those of Asia. His knowledge of the affairs of Russia is probably greater than that of any other American, and he is exceptionally familiar with the history of the relationships of Russia, China, and Japan in Manchuria and Korea. As president of a great manufacturing company he is widely acquainted with American business men and will know how to aid in procuring a just share for this country in the work of providing China with banks, railroads, and other developments. Mr. Crane is also intimately connected with educational matters, is a friend of most of our leading educators, and will be in sympathy with everything that has to do with the ethical and intellectual progress in the great Chinese population. Mr. Henry Lane Wilson, who was our minister to Chile from 1897 to 1905, and at Brussels for the past four years, has been transferred to Mexico as American Ambassador. The post is one of very great importance, and Mr. Wilson, who has been an Indiana editor and a Spokane (Wash.) lawyer and banker, is excellently fitted by training, experience, and character to receive this promotion.



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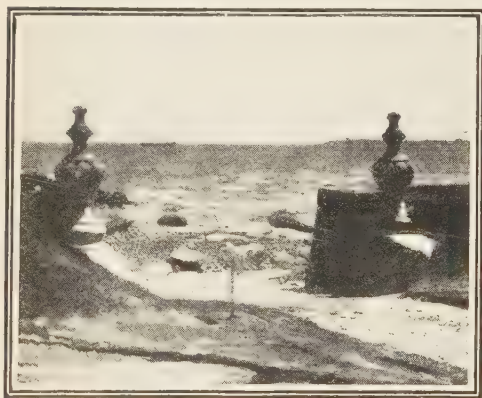
HON. HENRY L. WILSON, NEW AMBASSADOR TO MEXICO.

afterwards to the South. This arrangement will be facilitated by the action of Congress, late last month, in putting into the sundry deficiencies appropriations bill an allowance of \$25,000 a year for the President's traveling expenses. This will make it possible for him to engage a special train and make the frequent stops in the West that the people desire and that would not be feasible with a private car attached to a regular train. It is expected that the President will go to Denver, then to Salt Lake City, Spokane, and Seattle to visit the exposition. He will then go to San Francisco, and hopes to see the Yosemite Valley. He will make a stop at Los Angeles and will travel through Arizona and New Mexico. It is on the program that President Diaz, of Mexico, will journey northward and meet President Taft at El Paso, on the boundary. Mr. Taft also wishes to visit the great military post at San Antonio, and he has promised to be at New Orleans to attend the Waterways Conference. There will be many other stops in the Southern States, and the President will probably arrive at Washington by way of Richmond by about the middle of November.

The President's Summer and Fall Plans. Mr. Taft was hoping last month to have about six weeks' vacation at his summer home in Beverly, Mass.,—from the beginning of August to the middle of September,—before starting on his Western trip. The President's great recreation, as everybody knows, is golf playing, and he will find the conditions favorable for this exercise at his summer home. His further plans comprise an extended trip to the Northwest and the Pacific Coast, and



THE STETSON COTTAGE AT BEVERLY, MASS., ON MASSACHUSETTS BAY. SUMMER HOME OF PRESIDENT TAFT AND HIS FAMILY.



THE APPROACH TO THE PRESIDENT'S COTTAGE FROM THE SEA.



THE ENTRANCE TO THE PRESIDENT'S COTTAGE FROM THE LAND.



THE CLUB HOUSE OF THE MYOPIA HUNT CLUB, NEAR BEVERLY, WHERE PRESIDENT TAFT WILL PLAY GOLF.



IN THIS BUILDING ON CABOT STREET, IN BEVERLY, WILL BE THE SUMMER OFFICES OF THE PRESIDENT AND SECRETARY CARPENTER.

He is a great traveler and seems to find recreation in what would wear most men out with fatigue. The President's earlier plan of visiting Alaska was abandoned, both on account of Mrs. Taft's illness and also because of the prolonged session of Congress. It is understood that Mrs. Taft is steadily regaining her health and strength in the restful surroundings and invigorating atmosphere of the Massachusetts coast. August will be a vacation month for statesmen; and most of the Cabinet, like the Senators and Congressmen, will take refuge in their respective summer abodes.

Anni-
versary
Occasions.

The Champlain tercentenary celebration last month was an international affair. The addresses by President Taft, the British Ambassador, and the French Ambassador voiced the peace sentiments of the three peoples that had fought, in centuries past, with the Indian tribes or with one another, for the very ground that Champlain claimed by right of discovery. A pageant given on a floating island in the lake was the contribution made by a group of Indians to this celebration of the white man's ascendancy. Meanwhile other anniversaries, more or less local in character, have claimed attention during the summer. Norwich, Conn., the "Rose of New England," is 250 years old this year, and on July 5 the settlement of the town was duly commemorated by a parade and pageant. Here, too, President Taft was the guest of honor and spoke with appreciation



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A SNAPSHOT OF THE PRESIDENT TAKEN AT BEVERLY.

of those typical virtues which New England loves to think of as her peculiar heritage. Scenes in the history of Norwich were elaborately represented, one of these being the Indian battle of the East Great Plain, declared by historians to have been the greatest contest of the kind that New England ever witnessed. That part of the pageant devoted to the Revolution displayed General Washington being welcomed on his visit to Norwich. This was followed by a colonial minuet, in which thirty men and women took part. Norwich is not the only New England town to celebrate her quarter-millennial this summer. In the first week of August "Old Hadley," Mass., a village which, like Norwich, has sent forth a great number of sons and daughters to win distinction in many States, will commemorate her two hundred and fiftieth anniversary in a fitting manner. Representatives of Hadley families from all parts of the country will come back to the ancient hearthstones as New Englanders have come so frequently in recent years, especially since the inauguration of "Old Home Week." This annual pilgrimage to the ancestral shrines is fast becoming an established custom among our people.



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MR. TAFT PLAYING GOLF AT WASHINGTON.

With enthusiastic celebration New Jersey "Three Minutes to Broadway" ceremonies, including parades, speeches, and fireworks, Jersey City welcomed last month the actual fulfill-



Photograph by the Pictorial News Co.

THE CHAMPLAIN CELEBRATION—CROWD AT CROWN POINT.

ment of the Hudson tunnel promise,—“Three minutes to Broadway.” The official opening of the lower tubes of the McAdoo system of tunnels connecting New Jersey with New York took place at ten o'clock on the morning of July 19, when the first train, carrying the officials of the railroad, a number of State dignitaries, and about 2000 invited guests, left the New York terminal for the New Jersey shore. This first trip was made in two minutes and forty

seconds, official time. In the afternoon of the same day the tunnel was opened for general passenger traffic, and the first twenty-four hours of business was not only eminently satisfactory to the tunnel management but an emphatic indication of the benefit afforded by this easy and rapid system of transit, and of the way it is appreciated by the great traveling public which comes into New York every morning and goes out every night to their suburban residences in New



Photograph by the Pictorial News Co.

HISTORICAL PAGEANT AT THE NORWICH CELEBRATION.



THE CITY HALL PLAZA, JERSEY CITY, AT THE OPENING OF THE M'ADOO TUNNELS.

Jersey. The tunnel trains will take the commuter to and from New York in less than half the time formerly required by the ferry-boats. From Broadway, whence the traffic all turns ferryward to the trains in Jersey City, the saving in time will be much greater.

*Politics
in the
Metropolis.*

For the approaching municipal campaign in New York Tammany regards the control of the police as an asset not to be neglected. General Bingham, who was appointed Police Commissioner by Mayor McClellan nearly four years ago, was in every way unsatisfactory to Tammany, since he would not deal with politicians of high or low degree. Hence Tammany demanded his removal. An instance of alleged injustice in keeping an innocent man's photograph in the "rogues' gallery" was used as the basis of charges, and he was removed from office without a hearing by Mayor McClellan. No pretense was made that General Bingham's administration of his office had not been excellent. Particularly in the matter of traffic regulation the city is indebted to him for noteworthy improvements, while crime itself has been materially diminished in volume. His

successor is his former deputy, William F. Baker. The whole episode has served to impress the public mind anew with the resourcefulness of Tammany's leaders and to suggest the possibilities of a Bingham candidacy for the mayoralty. In the meantime, as if one anti-Tammany issue at a time were not enough, the New York Board of Aldermen last month antagonized many elements in the community by passing a revised building code which was thought to have been framed in the interest of particular manufacturers of structural materials, and which seemed likely to make the cost of building in the city much higher without affording additional safeguards to life or property.

*Pittsburg's
Labor
Troubles.*

The labor troubles of the past month in the great industrial district of which Pittsburg is the center involved thousands of workingmen and were accompanied by acts of violence. A strike of street-car employees in the city of Pittsburg late in June was ended after a tie-up of forty-eight hours by the action of Mayor Magee, who threatened to seize the car lines if the companies could not make terms with their employees. The men's



Photograph by Paul Thompson, N. Y.

TACKLING UP THE SHERIFF'S PROCLAMATION DURING THE M'KEES ROCKS, PA., STRIKE

grievances were of a technical nature, and in the settlement the companies virtually conceded the justice of their claims. On July 1 the Amalgamated Association of Iron, Steel, and Tin Workers began a strike against the American Sheet & Tin Plate Company, a subsidiary of the United States Steel Corporation operating plants in Pennsylvania, Ohio, West Virginia, and Indiana. By this action more than 7000 skilled workmen were called out. The trouble was precipitated by the attempt of the company to enforce the "open shop" policy. Many of the company's plants have been non-union all along; some of the independent sheet and tin plate manufacturers, on the other hand, have made wage agreements with the Amalgamated Association. A strike of 18,000 coal miners employed by the Pittsburgh Coal Company was apparently in sympathy with the strike of the tin plate workers and intended to work hardship to the mills of the Steel Corporation; but this strike was declared off as a result of intervention by President Lewis, of the United Mine Workers.

steel workers who considered themselves underpaid began a strike against the Pressed Steel Car Company, which has an important plant at McKees Rocks, near Pittsburgh. Much rioting and bloodshed resulted. Adjustment of the matters in dispute was made difficult by the lack of organization among the Pressed Steel Car Company's employees. The Standard Steel Car Company's works at Butler, Pa., were also tied up by a strike for some days. There the chief grievance of the men was the company's method of collecting delinquent house rent by retention of money from the men's weekly pay envelopes. The company agreed to a reduction in the percentage of such payments and the men abandoned their demand for an increase in wages. A full settlement was reached on July 20. Detachments of the State Constabulary of Pennsylvania were stationed in the vicinity of the McKees Rocks and Butler works to preserve order and their services were frequently required. The cost of the strikes to all parties concerned was estimated at over \$60,000 a day.

Meanwhile, about 3000 members of the Tin Plate Workers' Association employed at Newcastle, Pa., joined the strike of the Amalgamated Association, and about 3500 unorganized

*The
Lean
Treasury.*

The United States Government ended its fiscal year on June 30 with a deficit for the year of more than \$89,000,000. This showing is,

*Pressed
Steel Car
Strikes.*

however, much better than the forecasts of last winter, when the Treasury officials estimated that the deficit for the year would be \$114,000,000. The better showing was made because of a heavy increase in importations beginning in March, under the stimulation of impending tariff changes, and was helped by a more careful management of expenditures. But even with this smaller deficit the working balance of the Treasury was reduced at the beginning of this new fiscal year to \$42,000,000, not nearly enough to see the Government safely through the heavy demands of the crop moving season. Secretary MacVeagh has called from the depositary banks Government funds amounting to \$25,000,000, and as this magazine went to press the Government was considering the issue of no less than \$397,000,000 of Panama bonds. Of this sum, \$50,000,000 will be returned at once to the Treasury to reimburse it for its expenditure of \$40,000,000 to the French Panama Company in the purchase of the canal, and of \$10,000,000 paid to the Republic of Panama. The balance of the issue is thought sufficient to complete the canal.

*The
Future Revenue
Outlook.*

For the immediate purpose of meeting the drain of the next few months the Treasury balance is, with these additions, at a safe figure, but it is difficult to forecast any excess of revenue over expenditures for the fiscal year 1909-'10. Mr. Aldrich thinks the Senate tariff bill would bring some \$15,000,000 more revenue than the Dingley bill, with the same volume of trade. While a larger import business may be confidently expected in the rapidly improving conditions of industry, it will require a very great increase indeed to make up the difference between \$15,000,000 and \$89,000,000. Mr. Aldrich's theory is that by economizing expenditures in 1910-'11, and with the reasonable expectation of large increases in dutiable imports through the next four years, the deficit will be effectively cut down year by year. The general judgment is, however, that there is no choice between such a radical cut in expenditures as may scarcely be hoped for and new sources of revenue from a special tax.

*A Vast
Crop of
Corn*

The promise of good crops has grown stronger in the past month. Improvement in the condition of wheat brings the hope that this year's crop will be but little less than last

year's. Notwithstanding this comfortable quantity the price of wheat has been advancing with sensational rapidity. A record price for July delivery at Chicago of \$1.27 per bushel was reached in the middle of July, and, while the current prophecies of \$1.50 per bushel may not come true, it is certain that the farmers will receive magnificent prices. But it is corn which this year has broken all records. The Government's figures indicate a total yield for the United States of over 3,100,000,000 bushels. This is the largest crop of corn produced in the history of the country, the best previous yield being 2,900,000,000 bushels in 1906. It exceeds last year's crop by a half billion bushels. The increase over last year came from a more extensive acreage, 109,000,000 acres, a gain of 7.1 per cent., and an average condition of 6.5 per cent. better than last year.

*North
American
Railways.*

In an exhaustive report on the railways of the world, published by the Prussian Ministry of Public Works, it is shown that Asia and Africa are the most active fields for new railway building. The railways of the world aggregated, in 1907, 594,867 miles, an increase of 23½ per cent. in the decade; but Asia nearly doubled its mileage, and Africa gained 65 per cent. in the decade. North America is far in the lead in the extent of its railways, having 34 per cent. more than Europe and nearly as much as the entire Old World. The figures by grand divisions are as follows: Europe, 199,385 miles; Asia, 56,295; Africa, 18,519; North America, 268,058; South America, 34,911, and Australasia, 17,700. In North America there are important movements on foot for re-alignments of railway traffic, which, especially in the United States, will now occupy the thoughts of our great masters of transportation more than new building. The Harriman lines are preparing for the new northward and southward movements of freight to be brought by the Panama Canal. The important strategic move in this field was the acquisition of a working control of the Illinois Central, the splendid railroad highway from Chicago to the Gulf. Mr. Hill recently bought for his Burlington System the Colorado & Southern, connecting Denver and Galveston, and now he is preparing to build a short link to the Louisville & Nashville, which will give him an outlet to the Southern Atlantic seaboard.

*A Big
New
Industry.*

The rapid expansion of the business of making automobiles has scarcely had a parallel in American industry. Last year some 75,000 cars were manufactured in the United States. Next year it is conservatively estimated that not less than 150,000 cars, and possibly 200,000, will be made. With an average price of \$1500 per car, this means an output that will be sold for not less than \$225,000,000. In an industry which, five years ago, was negligible in size, these figures give a striking idea of the grasp that motoring has taken on the imagination of the American people. The huge increase in the production of cars next year will be most largely in low-priced and medium-priced machines. The large factories that make automobiles selling from \$500 to \$2000 each turn out as many as 12,000 machines in a year. The cars that cost more than \$4000 are made by concerns that produce, with one or two exceptions, less than 1500 cars a year. It is in the cheaper machines that American ingenuity and factory methods have most signally triumphed. It is true that now the best high-priced American cars are about as good as the best European products; but the American cars selling for less than \$2000 are better than the European machines of the same grade. These cheaper machines are already being exported to Europe in successful competition with the foreign cars, a state of affairs that would have seemed impossible only two or three years ago. A movement has already set in toward centralization of the business of automobile manufacture. The General Motors Company has purchased a half-dozen automobile businesses manufacturing in the aggregate over 30,000 ma-

chines a year. To show the prosperity of the trade, the last concern to sell out to the General Motors Company received \$4,500,000 for its stock, and every dollar of this is said to be clear profit, as dividends have already been paid to the full amount of the original investment.

*The Great
American
Game.*

Even the serious business of tariff making did not serve to dampen the ardor of the baseball enthusiasts in Congress, and during a lull in the all-important work of framing tariff schedules a rather unique game of baseball was played between two teams representing the Democrats and the Republicans of the House. The Democrats won by a score of 26 to 16. But this is not so remarkable as is the tremendous interest shown in the game of baseball. Tariff revision may worry Congress and the nation, the stock market may rise or fall, Sultans and Shahs may be deposed, and other important national and international events take place, but the great game of baseball goes on all over the land with undiminished enthusiasm. It infects all classes and ages. The statesman, the merchant, the lawyer, the broker, as well as the office boy with his excuses for truancy,—all are eager attendants at the game. Even the President, Vice-President, and members of the Cabinet, along with the Speaker and other high dignitaries of official life, have frequented the grand-stand on the Washington ball grounds. In New York, on one day last month, as many as 40,000 spectators witnessed a "double header,"—that is, two games of ball. The standing of the teams in the large leagues is eagerly discussed, as well as the personalities of the individual players.



Photographs by Harris & Ewing.

THE DEMOCRATIC TEAM.



THE REPUBLICAN TEAM.

CONGRESSIONAL BASEBALL LAST MONTH.

*Cuba's
Inefficient
Congress.*

After an almost continuous session of five months unmarked by any noteworthy achievement, the first Congress of the present Cuban Republic adjourned on July 18. It is a rather severe comment on the Congress that the first law to be passed by the session just closed has been declared unconstitutional by the Supreme Court. This was a purely political measure having to do with the appointive power of the Alcaldes, or heads of municipalities. Among the most important bills which have received President Gomez' signature were those creating the national lottery and legalizing the sport of cock-fighting. Another important bill which became a law was that permitting the installation of long-distance telephones throughout the island. There was much discussion of the budget, but no agreement on the subject. Finally, late on the night of June 30, at the close of the fiscal year, before which, the Constitution says, the budget must be approved, the Congress suddenly adjourned. President Gomez took the situation in hand and issued a decree putting in force the budget of the year which had just ended. As amended by the President's economies, the budget calls for an expenditure of approximately \$31,000,000.

*The Peruvian-
Bolivian Bound-
ary Dispute.*

What for a time seemed certain to develop into a quarrel of first-class magnitude between Bolivia and Argentina followed last month upon the decision rendered by the Argentine Government as arbitrator in the boundary dispute between Bolivia and Peru. Ever since the early days of Spanish and Portuguese conquest the vast region stretching between longitude 62 and 78 degrees West and latitude one degree North and twelve degrees South, covering more than one million square miles, has been disputed and fought over by Colombia, Ecuador, Peru, Bolivia, and Brazil. Many wars, and still more treaties, defined and redefined the boundaries crossing this region. Chili and Peru fought over a part of this territory, and Bolivia, which had joined Peru in the war, lost a large slice of her territory upon the sea coast, making her an entirely inland country. Bolivia also lost by the treaty of 1903 with Brazil, by which she agreed to relinquish her claim to most of the Acre territory. She then had to settle with Peru, and now again, by the decision of the mutually chosen arbitrator, Bolivia is the loser. Here are the facts in the case.

*Bolivia
Repudiates the
Decision.*

In accordance with the general arbitration treaty agreed upon between Bolivia, Peru, and Argentina in the year 1902, all boundary disputes are to be submitted to peaceful arbitration. By another treaty made during the same year Peru and Bolivia agreed to submit the present boundary dispute to the President of Argentina. The decision of President Alcora was rendered last month. While dividing the disputed territory between the two countries, it greatly favors Peru. Indeed, some of the most valuable of the territory in dispute, that containing vast forests of rubber trees, was awarded to Peru. When the decision was announced in the Bolivian capital there were many riots and demonstrations against Argentine representatives. The Bolivian Government declined to abide by the decision, alleging that no inspection of the territory in dispute had been made by the judges, and that admittedly spurious documents had been followed in arriving at the judgment. For several days the situation seemed full of war possibilities which might involve the entire continent. Chilean and Brazilian journals announced that they would not sit quietly by and see Bolivia absorbed by or divided up between Peru and Argentina. Brazil and Argentina and Peru and Chili are generally at swords' points, and the situation was ominous when the Bolivian Government, realizing that it was in honor bound to accept the decision, however adverse, announced its intention of accepting the judgment, apologized to Argentina for the acts of the rioters, and declared its intention to take up with Peru such phases of the general question in dispute as still admitted of direct negotiation between the two countries.

*Presidential
Politics in
Brazil.*

By the death of President Penna, of Brazil, noted in these pages last month, the presidential campaign in that country has become the center of political interest in South America. The deceased statesman was very highly esteemed, and his death is regarded as having been hastened by political treachery on the part of his party associates and opponents. A vivid picture of political conditions in the great South American republic is given by a letter we have just received from an American missionary stationed in the state of Minas Geraes. We quote the significant portions of this letter.

Dr. Penna's death has aroused the greatest



THE LATE PRESIDENT PENNA OF BRAZIL AND HIS FAMILY.

indignation throughout the whole of Brazil. Most of our people believe that it need not have been. Candidates for the presidency in this country [Brazil] are not nominated by a convention elected for that purpose, but by some self-constituted group of politicians. In this instance Dr. Penna took the initiative and presented the name of his Minister of the Interior, Dr. David Campista. This gentleman has for years been the object of widespread hatred because of his work in doing away with long-standing abuses. He has saved the government hundreds of thousands of dollars by cutting off sinecures, holding up contraband, stopping the payment of "hush money," dismissing the officials involved, and performing many other acts of the same nature. Dr. Penna had the idea that here was a man to continue the government's policies, and he championed openly and energetically Dr. Campista's name for the presidency. To those who know the dead President it is simply indecent to suppose that he was impelled by any but the highest motives in this matter. A certain part of the press, for reasons known to themselves, raised a great howl against this "scandal," as they called it. The Minister of War, Marshal Hermes da Fonseca, came out in a letter against the candidate on the ground that he was a member of the cabinet. It was whispered around, further, that if the President persisted in his course, the army might revolt and he be deposed. Under this sort of pressure President Penna desisted, not wishing to make any trouble. . . . Notwith-

standing the fact that Marshal Hermes is also a member of the cabinet, he accepted the nomination. . . . Dr. Penna was a man of delicate sentiments and rigid honesty, but not cold-blooded enough to resist the machinations of his political enemies in a struggle of this kind. Public indignation in the city of Rio on the day of his burial was very strong. Here was not a glorious death, but one that profoundly moved the heart of the people, for they feel that an honest man has been wickedly sacrificed.

Dr. Nilo Peçanha, the Vice-President, who now assumes the office of Chief Magistrate in the Republic, is in some respects a stronger man than his predecessor. The government is also composed of strong men, and although the political situation is tense, the new ministry inspires confidence.

*The
British
Budget.*

Besides the German war scare and the discussion over Britain's threatened naval supremacy, all Englishmen, indeed it may be said all thoughtful citizens of the British Isles, are interested and concerned to an unusual degree in the "revolutionary" budget which Mr. Lloyd-George, Chancellor of the Exchequer, introduced in the House of Commons on April 29, and which is now triumph-

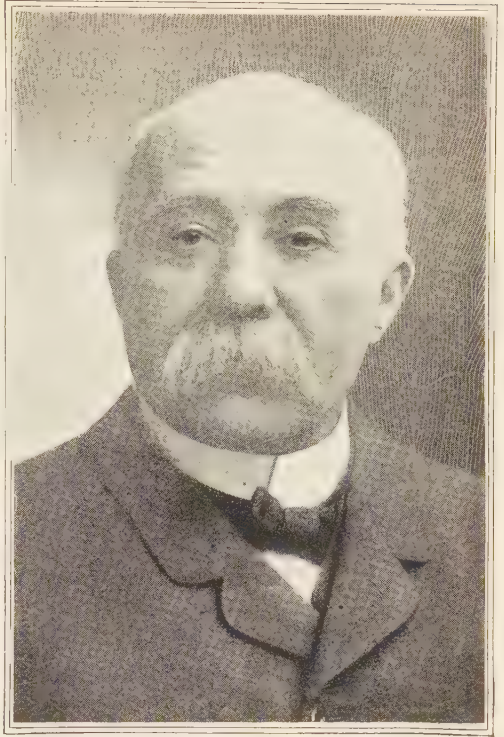
antly making its way through the lower house of the British Parliament. An analysis of the provisions of this extraordinary financial measure, set forth against the background of his large and remarkable political experience, is given by Mr. W. T. Stead on another page (203) this month. It is not difficult to see from Mr. Stead's analysis and interpretive comment that a great many elements not strictly financial have been introduced into this measure. Indeed, there is a great deal of politics in it, including two measures, the Land Valuation bill and the Licensing bill, both of which the House of Lords has already rejected in independent form.

*What Will the
Lords Do
with It?*

It looks as though the Asquith Government were endeavoring to secure the enactment of the main tenets of its political program by including them as "riders" in the Finance bill, or "tacking them on," in the English phrase. The right of the Commons for the past three hundred years to control without interference from the other House all money bills has never been questioned. On July 16, however, Lord Lansdowne, speaking as official leader of the Opposition majority in the Lords, intimated that his party intends to propose certain amendments to the budget which will soon,—perhaps before this issue of the REVIEW reaches its readers,—be sent by the Chancellor to the Lords for their consideration. Lord Lansdowne would have a very strong support in taking this step, not only from the out and out Opposition elements, but from the many Liberals, who are anxious to have settled the constitutional point whether or not the hereditary house must accept whatever legislation is proposed by the Commons, if it be included,—even illogically,—in a revenue bill.

*The
Fall of
Clemenceau.*

The fall last month of the Clemenceau cabinet in France was entirely unexpected and, coming as it did under dramatic circumstances after a long and violent debate over the naval scandals, has indicated an entirely unforeseen and far from encouraging situation in French politics. Upon the presentation of the report of the naval investigating commission, headed by former Minister of Foreign Affairs Delcassé, a bitter and reckless debate ensued, during which not only the government as a whole, but the personalities of the cabinet ministers were attacked openly. A sharp exchange of taunts between Premier



CLEMENCEAU, UNTIL JULY 20, PREMIER OF FRANCE.

Clemenceau and M. Delcassé was ended by the Premier's asking for a vote of confidence in the Deputies. The result was that by a vote of 212 to 176 the government was defeated. M. Clemenceau immediately left the Chamber and presented his resignation to President Fallières. The rest of the ministry also resigned and the President summoned M. Leon Bourgeois, former minister of foreign affairs and French delegate to the first Hague Conference, and requested him to form a new cabinet. This was the situation on July 21.

*The
Longest
Premiership.*

The premiership of Georges Clemenceau has been the longest in the history of the Third Republic. This man, who for the past three years has been absolute master in France, has had one of the most checkered and remarkable careers in modern French politics. He is of peasant stock, has risen literally from the ranks, and fought his way to the chief position in the gift of his countrymen. In this REVIEW for June, 1906, we printed an excellent sympathetic sketch of Clemenceau's life and public career. He is a man of indomitable courage, persistence, infinite re-



M. THEOPHILE DELCASSÉ, FORMER FRENCH MINISTER OF FOREIGN AFFAIRS.

(Who has just made a sensational report on the condition of the French navy.)

sources, and has remarkable power over men. If it were not for his advanced age,—he is in his sixty-eighth year,—it would be safe to predict that he would again return to a position which is as nearly supreme as anything in the political life of the French republic.

*France's
Naval
Inefficiency.*

France has for several years been very much worried over the "demonstrated inefficiency" of her navy. Some months ago a Parliamentary Commission, under the presidency of former Foreign Minister Delcassé, was appointed to investigate the charges of abuse and inefficiency in the navy of the republic. Late in June this commission made its report. It is in substance a most severe indictment of French naval management during the past five years, and accuses the Admiralty officials of extravagance, lack of method, and even of fraud.

*The
New French
Tariff.*

The report points out that during the past decade France has spent more than \$600,000,000 on the navy, a larger sum than that expended by Germany, but that these two nations have

changed places in sea-power. France has dropped from second place to fourth and Germany has advanced to second. All this despite the fact that French workmanship, ingenuity and invention are unsurpassed in the world. The commission urges a thorough reorganization of the navy department. The French Parliament is still debating upon the new tariff of the Republic. The Minister of Commerce, M. Jean Cruppi, has been arguing strongly in favor of a bill which would "safeguard France's political and economical interests in foreign countries,"—by this meaning provisions for retaliatory measures, particularly against the United States. French merchants and investors have been watching closely the passage of the Payne-Aldrich tariff through our Congress.

*Death of
the Spanish
Princess.*

While the little Princess Beatrice, the infant daughter and third child of the King and Queen of Spain, was being christened with great ceremony at Madrid last month, the



FRANCE AND HER BROKEN CRUTCHES—A GERMAN VIEW. (A rotten navy and an officialdom which inspires no confidence.)

From *Kleine Witzblatt* (Berlin).

old pretender to the Spanish throne, Don Carlos de Bourbon, who had retained the title of the Duke of Madrid, died in Italy at the age of 61 years. He was a cousin of the present King of Spain, and his pretensions to the throne were based on the ground that he was the senior male representative of the house of Bourbon, the head of the oldest surviving branch. He claimed that the succession could not lawfully pass to the two queens,—Isabella, daughter of Ferdinand VII, and Christina, mother of Alphonso XII,—because of the Salic law, which does not recognize the right of a woman sovereign to govern. As the head of the house of Bourbon he was also the first in direct succession to the throne in France in the event of a restoration of the French monarchy.

*Career
of
Don Carlos.*

Don Carlos, indeed, was the only real modern pretender whose claims had any vitality in them. His claim was supported by the widespread and pretentious propaganda in Spanish politics known as the Carlist movement, which has been an influential factor in Spain's political life for more than a generation. In 1872 he attempted to assert his rights to the throne by force of arms, but after four years of guerrilla

warfare he gave up the struggle. Upon his death the surviving members of the family and the leaders of the Carlist party unanimously chose his son and heir, Don Jaime de Bourbon, to be the official "Pretender." Don Jaime has been for some years an officer in the Russian army, but has lived most of the time in Paris. Owing to the French law, which imposes perpetual exile upon the recognized head of any family that has been on the French throne, he will hereafter not be permitted to live in France.

*The New
German
Chancellor*

One of the most highly significant and important events in German national and foreign politics is the advent of a new Chancellor. The Empire has had in its history so far but four Chancellors,—Bismarck, Caprivi, Hohenlohe, and Bülow. The last named, in many respects, despite hostile criticism and disparagement at home and abroad, quite the match of the "man of blood and iron," stepped aside formally on July 14, and Kaiser Wilhelm at once authorized the announcement that his successor would be Dr. Theobald von Bethmann-Hollweg. This statesman, who was the choice of Prince von Bülow, was, when chosen, Imperial Minister of the Interior and Vice-Chancellor.

*Prince Bülow
and the
Finances.*

For months it has been realized not only by Germans themselves, but by political students all over the world who watch Berlin with particular attention, that, in the event of his failure to secure sufficient support in the Reichstag to pass the Government's long-discussed and much-criticised Finance Bill, Chancellor von Bülow would find himself between the horns of a very serious dilemma. He would have to bring about another combination of parliamentary groups or dissolve the Reichstag and appeal to the country. On June 24 a decisive vote against the government's financial scheme was recorded, and it was seen that the so-called *bloc*, composed of the Imperial Conservatives, the National Liberals, the Radicals, and the Socialists, could not longer be relied upon to force through government measures. The Opposition, composed of the Conservatives proper, the Centrists (Clericals), the Poles, and the Independents, then demanded the Chancellor's resignation or a dissolution of the Reichstag. To appeal to the country at that time would undoubtedly mean an increased Socialist representation, which would be fatal to the Kaiser's ideas



THE LAST RIDE TOGETHER.

PRINCE BUELOW: "At this point, Sire, with your august permission, I propose to resign my high function."

THE KAISER: "Nay, nay, excellency; we will bear with you a little longer."

From *Punch* (London).



HERR REINHOLD SYDOW, WHO FORMULATED THE MUCH DISCUSSED GERMAN GOVERNMENT FINANCE BILL.

(Herr Sydow was last month appointed to be Minister of Commerce.)

of a big navy and army and his other imperialistic projects.

*The Politics
of His
Resignation.*

Legally, Prince von Bülow might have held to his post, since, technically, the German Chancellor is responsible to the throne alone and not, as in Great Britain, to the dominant party in the Parliament, reflecting, as it is presumed to do, the majority of opinion throughout the country. Ever since, however, the famous utterance of Chancellor von Bülow in November last, that hereafter the Kaiser would act in foreign affairs only through his ministry, it has been tacitly admitted in Germany that the Reichstag had established the principle, at least, of ministerial accountability. Therefore Bülow very gracefully resigned and minimized the effect of his resignation by indicating as his successor a man highly acceptable to his Imperial master, not including, however, in his qualifications—as far as is known—an intimate knowledge of or vigorous attitude upon international affairs.

*Personality
of the New
Chancellor.*

Of Dr. von Bethmann-Hollweg's career and qualifications comparatively little is known further than that in politics he is a mild Conservative, that he was a personal friend of the Emperor during their college days,

and that he was recommended by the retiring Chancellor as "the best man in Germany to carry out the policies of the present government and satisfy the ideas and wishes of the German people." He is in his fifty-third year and has had considerable experience as the administrator of German provincial government, but no particular qualifications for or knowledge of international politics. It is interesting to note also that he is partly of Jewish origin. The Berlin correspondent of the *New York Times* in characterizing the new Chancellor's personality makes these comparisons:

If Americans will picture a composite of Abraham Lincoln, Senator Cullom, and Speaker Cannon, they will get a fair photograph of the new Chancellor's exterior. But for Lincoln's wit and Cannon's humor they will have to substitute the drawl of a country lawyer, the heaviness of a college professor, and the manner of a recluse philosopher to get a correct idea of Dr. von Bethmann-Hollweg's personality.

*Career
of the
Ex-Chancellor.*

The retiring Chancellor, who is now in his sixtieth year, Bernhard H. M. C. Prince von Bülow, literally rose from the ranks. His father was the principal Secretary of State under Bismarck, and the younger Bülow grew up in the atmosphere of diplomacy. Upon being appointed Chancellor (in October, 1900) he at once made evident his ability as a conciliator. Germany and Italy as the result of his efforts are now on much more friendly terms. It was he, moreover, who was always the strongest voice in Germany, speaking for friendship with England and France. He was for a big navy, and during his Chancellorship German sea-power grew to its present altitude, where it menaces England. Von Bülow, however, always contended that the navy was not for aggressive purposes. The striking events of his term of office were the development of Kiauchau in China, the tilt with France over Morocco, and the "diplomatic muzzling" of the Kaiser last November after the popular resentment in Germany growing out of the Kaiser's famous interview in the *London Daily Telegraph*. His cardinal virtue was his ability to manage his impulsive master. His next most valuable gift as far as the rest of the world was concerned was his facility in making friends and in soothing foreign susceptibilities by suave, pacific speeches. He announces that he has retired permanently from political activity to live at his beautiful villa in Rome with his Italian wife.



DR. THEOBALD VON BETHMANN-HOLLWEG, THE NEW GERMAN CHANCELLOR.

*The Situation
Facing the
New Premier.*

The budget which was finally adopted on July 10 as a substitute for the one proposed by Prince von Bülow is a compromise, with the obnoxious "death duties" provision eliminated. In proroguing the Parliament until autumn Dr. von Bethmann-Hollweg told the Coalitionists, whose united efforts had succeeded in passing the bill, that he had been in cordial accord with Prince von Bülow's fiscal views, and that he regarded the new measures with anything but approbation.

The German Empire is now facing a grave financial situation which will tax to the utmost the powers and ability of the new Chancellor. In this connection we call the special attention of our readers to a detailed and comprehensive analysis of German finances, past and present, which we present on another page (209) this month. It is a rather critical moment in Germany. Given a new, undistinguished and untried Chancellor a "Junker" majority in the Reichstag and the impulsive Kaiser firmly re-estab-

lished as autocrat in foreign affairs, and we have a state of affairs from which may be expected surprising developments.

Recent Happenings in Russia. Czar Nicholas, of Russia, will soon make a tour which will include a short stay in London and a more extended visit to Paris. A number of political and social organizations in England and France have protested against the visit of the Russian monarch, because of the brutalities of the repressive measures during recent years in Russia, particularly in view of the undoubted ascendancy of reaction at the present time. Meanwhile, on July 8, the Czar, his ministers, most of the dignitaries of the empire, and a large military force participated in the celebration commemorating the two hundredth anniversary of the battle of Pultowa. This event, which Sir Edward Creasy classes as one of the "decisive battles of the world," marked the end of Sweden's power in Russia and the inauguration of the modern empire of the Czars. It is important to note in passing that late in June the Russo-Finnish Commission, "charged with a revision of the legislative relations between the Empire and the

Grand Duchy of Finland," began its sessions in St. Petersburg. The Finns are agitating for the right to send representatives to the Duma and the Council of the Empire.

Settling Down to Work in Turkey.

The young Turkish régime at Constantinople is marking time and endeavoring to justify its rule on the one hand by forcing immediate internal reforms, so that the people may see for themselves that Constitutionalism is good in a material way, and on the other by engaging popular attention in a firm, if not actually aggressive, foreign diplomacy. Recent dispatches state that twenty-seven thousand government officials and government employees are to be retired or dismissed for the good of the service and for reasons of economy and retrenchment. Vigorous efforts are also being made to better the condition of the agriculturalists and the soldiers throughout the entire Empire, while in the capital itself the people are being provided with "bread and the circus" in the form of new public parks and better and cheaper transportation service. Having obtained from the palaces and parks of the deposed Sultan Abdul Hamid virtually all the money and treasure contained therein, it is now reported that the government has decided that, because of his complicity in the revolt of April 13, the ex-Sultan shall be committed to trial before the High Court of Justice,—and all his treasure taken "for purposes of state." The German press declares that the German, French, and British banks have already announced that they will no longer keep the ex-Sultan's cash for him.

Turkey, Crete, and Europe.

The report of the court-martial held at Adana in connection with the massacres there censures the Governor and other local officials. It announced that fifteen of the murderers have been hanged already, and adds: "Eight hundred deserve death, fifteen thousand deserve penal servitude for life, and eighty thousand deserve minor punishment." The court, however, recommended that as a general reconciliation has occurred universal amnesty be granted. In external politics questions of Crete and Russo-Turkish relations growing out of Turkey's boundary dispute with Persia and Russia's influence in the settlement of the whole Persian question are most important and significant. The vigorous attitude taken by Chevkett Pasha, who is the head of the army and virtually



THE FORCE OF EXAMPLE.

GERMAN KAISER (patronizingly): "I hear you're building a new fleet. Any particular object?"

CZAR: "No—merely cause of peace—same as you."

From *Punch* (London).



PERSIA IN ITS RELATION TO ITS INTERESTED AND TROUBLESOME NEIGHBORS.

the dictator of the new Turkey, in the matter of the future of Crete, is set forth on another page this month. It was announced late in June that the four protecting powers of Crete,—France, Great Britain, Russia, and Italy,—had agreed to withdraw their gendarmerie from the island on July 27, this announcement being accompanied by a caution to Cretans, Turks, and Greeks to remain calm.

*Democrat-
izing
Asia.*

Asiatic history is being made and re-made these days with a rapidity and dramatic significance that is almost bewildering. The oldest of the continents seems to have taken fire at both ends with the spirit of modern constitutional democracy. From Japan westward, and from Turkey eastward, the democratic idea and ideal have spread until they have already put Persia in the constitutional column, are stirring and fermenting throughout the vast extent of China, and have so permeated British India that the dependency has actually entered upon an era of truly representative government under the ægis of the British Crown. Arabia is demanding from the new Turkey a government administered in ac-

cordance with modern methods. From the oldest continent the spirit has entered into Africa. Egypt knocks loudly at the doors of British Parliament for more "Nationalist" privileges, and the Sultan of Morocco has just announced to the world (through the *London Times*) that if it were not for the misrepresentations of himself and his government by the European press it would be seen that the Sheereefian Empire has actually made substantial advance in the direction of modernization according to Western standards. It is a significant fact that an overwhelming majority of the most active fighters in the cause of Constitutionalism are Mohammedans. Japan started the idea for Asiatics generally; Turkey headed the march for the Mohammedan world.

*The
Revolution in
Persia.*

By the flight of Mohammed Ali, Shah of Persia, from his capital last month, and his taking refuge in the Russian Legation, the ancient realm of Persia became a truly Constitutional country. The Shah's flight to Russian protection has been regarded by the entire world as an informal abdication of the throne. On July 16, following a proclamation of the mujte-



AHMED MIRZA, THE NEW BOY SHAH OF PERSIA.

(A portrait of Mohammed Ali, the deposed Shah, will be found on page 225.)

hids that the Shah was no longer a true Moslem and, therefore, it was permissible to wage against him a Holy War, the monarch was formally dethroned and the Crown Prince Ahmed Mirza was proclaimed Shah by the National Assembly at Teheran. On another page this month (225) will be found an account of the inception and evolution of the democratic idea in Persia.

With a Russian army less than eighty miles from the capital, and a complete Anglo-Russian agreement as to spheres of influence in Persia, and the inevitable consequences of any reactionary tendencies on the part of the new government, the constitutional régime seems to be well started on its way. Russian troops have taken important part in the fighting of the past few months in Persia. Indeed,

Mohammed Ali himself is quite Russian not only in his ideas and tastes but actually in his personal appearance. During his reign he kept Russian advisers around him, and appointed General Liakhov, a Russian officer, commander of the royal troops and Governor of the capital. It was the fear of Russian aggression and the hatred of Liakhov and his Persian "Cossacks," as well as the desire for truly representative government, that finally aroused even the ignorant masses of the country to military action. The campaign of the Revolutionists was victorious on July 13, when their army entered Teheran in triumph. The two leaders of the "Nationalist" forces, Sipahdar and Sardarassad, aided by the revolutionary chieftains Sattar Khan and Bazu Khan, all of whom appear to be sincere, honest patriots, have outgeneraled and outfought the Shah and his reactionary advisers at every point. Sipahdar is Minister of War and Governor of Teheran under the new régime.

The Boy Who Is Now Shah, and Parliament. Ahmed Mirza, the newly proclaimed Shah, is the second son of his father. His older brother is not eligible to reign because his mother is not a princess of the reigning Kajar house, which has ruled Persia since 1794. Ahmed Mirza is in his twelfth year and during his minority the government will be administered by a regent, who has been designated as Azud es-Sultan, known as Ul Mulk, one of the uncles of the young ruler. It is believed that both the Russian and British governments will aid the Persian Nationalists to establish a strong government at Teheran. The British press, led by the London *Times*, maintains that the council of intelligent men that is actually now administering the government can restore the prestige of the country and maintain order. It is also announced in London that as soon as the regular government is in working order the long-promised Anglo-Russian loan will be at once forthcoming as a long step toward the economic and industrial regeneration of the country. Under an important Royal rescript (August 5, 1906), the National Council (in Persian, *Majlis i Shora i Milli*) shall consist of and be elected by members of the reigning dynasty, and by the clergy, chiefs, nobles, landowners, and merchants. A later decree fixed the number of members at 156, elected for a term of two years. The Assembly meets annually in October. There is also provided a Senate of 60 members.



THE PERSIAN PARLIAMENT IN SESSION IN ONE OF THE HOT WEATHER COUNTRY RESORTS OUTSIDE OF TEHERAN.

*The
New
India.*

A really new India came into being on May 26 last, when Lord Morley's reform scheme went into active operation throughout Britain's vast Asiatic dependency. The Secretary of State for India in co-operation with Lord Minto, the present Viceroy, has so amended the constitution of Hindustan that hereafter natives are to be associated with Englishmen in both the legislative and administrative departments of the Indian Government. We call the special attention of our readers to the informing and authoritative article on page 197 this month, setting forth the general political and economic situation in India as affected by the Morley reform. It was unfortunate, but not in the least indicative of the general attitude of the Hindu world at the present moment that only a few weeks after King Edward had approved of the reform scheme a Hindu fanatic named Madar Lal Dhinagri in London shot and killed Colonel Sir William Curzon-Wyllie, one of Lord Morley's aides. The incident may tend to increase Lord Morley's difficulties. It will not divert his attention from his great task of modernizing India, or alter the intention of Britain to "do the right thing" by the Hindu people.

*China and the
United States
vs. Russia.*

The important fact in our Asiatic relations during the past month was the appointment of Mr. Charles R. Crane as our Minister to China. This appointment we have already commented upon. It was announced on July 18 that Mr. Crane was persona grata to the Chinese Government. American diplomatic relations with China are becoming increasingly important. Within the past few months our State Department has had two important communications with the authorities at Peking, one with regard to participation by American bankers in the Hankow-Sze-chuen Railroad loan and the other protesting against the ratification of the recent convention between China and Russia, dealing with the control of the municipalities along the Russian section of the so-called Chinese Eastern Railway. By the provisions of this treaty Russia would gain absolute control of the railway. Against this the United States protests as a violation of the "Open Door" principle. Among other evidences of Chinese progress during recent months is the appointment of Tuan-Fang, who studied in the United States, and who is a believer in American methods, to be Viceroy of the Province Pe-chi-li.

RECORD OF CURRENT EVENTS.

(From June 21 to July 20, 1909.)

PROCEEDINGS IN CONGRESS.

June 21.—The Senate discusses the question of free or dutiable hides....The House adopts one of the Senate amendments to the Census bill, which is sent back to conference.

June 22.—The Senate, by a vote of 46 to 30, agrees to a duty of 15 per cent. ad valorem on hides.

June 23.—The Senate adopts an amendment to the coal schedule offered by Mr. Aldrich (Rep., R. I.), reducing the duty on bituminous coal from 67 to 60 cents a ton and eliminating the reciprocity clause from the House bill; the duty on pineapples is increased.

June 24.—The Senate adopts amendments to the Tariff bill increasing the duty on shoes from 15 to 20 per cent. ad valorem and on sole leather from 5 to 10 per cent.; the duty on collodion is also increased....The House passes the bill appropriating \$10,000,000 for the taking of the next census.

June 25.—In the Senate, Mr. Aldrich (Rep., R. I.) presents the corporation-tax amendment to the Tariff bill.

June 26.—The Senate passes the bill appropriating \$10,000,000 for taking the Thirteenth Census.

June 28.—In the Senate, consideration of the schedules in the Tariff bill is completed and the resolution providing for an income-tax constitutional amendment is introduced....The House adopts the conference report on the Census bill.

June 29.—In the Senate, the amendment to the Tariff bill offered by Mr. Tillman (Dem., S. C.), providing for a 10-cent tax on tea, is defeated; the income and corporation tax questions are then taken up.

June 30.—In the Senate, Mr. Cummins (Rep., Iowa) and Mr. Borah (Rep., Idaho) speak in favor of an income tax.

July 2.—The Senate adopts the corporation-tax amendment to the Tariff bill by a vote of 60 to 11.

July 3.—The Senate adopts the maximum and minimum section of the Tariff bill with the retaliatory tea and coffee duties eliminated.

July 5.—The Senate, by unanimous vote, adopts the resolution providing for the submission of an income-tax Constitutional amendment to the State legislatures; consideration of the administrative features of the Tariff bill is completed.

July 6.—In the Senate, the Tariff bill is reported by the committee of the whole.

July 7.—In the Senate, the income-tax amendment offered by Mr. Bailey (Dem., Tex.), as a substitute for the Finance Committee's provision, is rejected by a vote of 28 to 47; an amendment to the corporation-tax measure, offered by Mr. Clapp (Rep., Minn.), striking out the exemption of holding companies, is accepted; the

Finance Committee's provision for a customs court is adopted; the Senate adopts a number of tariff amendments reported by the committee of the whole.

July 8.—The Senate passes the Tariff bill by a vote of 45 to 34.

July 9.—The Senate passes the Philippine tariff and Porto Rican government bill....The House disagrees to the Senate amendments to the Tariff bill and a conference committee is appointed.

July 12.—The House, by a vote of 317 to 14, adopts the Senate joint resolution providing for the submission of an income-tax Constitutional amendment to the State legislatures.

July 15.—The House inserts an item of \$25,000 for the President's traveling expenses in an urgent deficiency bill.

July 20.—The House passes the urgent deficiency bill, carrying an appropriation of \$25,000 for the President's traveling expenses.

POLITICS AND GOVERNMENT—AMERICAN.

June 26.—Governor Hoke Smith, of Georgia, is succeeded in office by Joseph M. Brown.

June 29.—Secretary of the Treasury MacVeagh calls on national depository banks for a return to the Treasury of Government funds aggregating about \$25,000,000.

July 1.—The State-wide liquor prohibition law goes into effect in Tennessee....Police Commissioner Bingham, of New York City, is removed from office by Mayor McClellan and Deputy Commissioner Baker put in his place.

July 3.—Federal Judge Campbell holds that the Oklahoma State law prohibiting the shipping of gas and oil out of the State is unconstitutional.

July 6.—The Georgia Legislature, by unanimous vote, re-elects Alexander Stevens Clay to the United States Senate.

July 12.—The New York State legislative committee on direct nominations begins a series of hearings at Boston.

July 13.—The New York Board of Aldermen, by a majority of one vote, adopts the majority report on the new building code.

July 14.—The special commissioner appointed by Governor Hughes to investigate the charges against Borough President Haffen, of the Bronx, New York City, recommends the removal of that official.

July 16.—President Taft states his attitude in favor of downward tariff revision to a delegation of Congressmen who call at the White House to protest against his course.

POLITICS AND GOVERNMENT—FOREIGN.

June 21.—Lord Rosebery addresses to the English press a letter discussing the budget from a constitutional point of view.

June 22.—The French parliamentary committee on the navy shows in its report that gross inefficiency and waste of money has prevailed....The finance reform committee of the German Reichstag rejects a government bill for succession duties and adopts a tax on stocks and shares opposed by the government....Dr. Wekerle, premier of Hungary, resigns on the rejection by the Emperor of his plan to get over the Hungarian cabinet crisis.

June 23.—The Australian federal Parliament reassembles at Melbourne....A meeting is held in London to protest against the budget (see page 203)....The German Reichstag passes on second reading the clause of the Finance bill, providing for the unearned-increment tax.

June 24.—The German Reichstag rejects by a vote of 194 to 186 the government bill to extend inheritance taxes to direct heirs, including widows and children....The troops of the Sultan of Morocco defeat the rebels outside of Fez....Acting President Holquin, of Colombia, revokes sentences of exile in political cases and reduces the diplomatic service.

June 25.—Lord Fitzmaurice, Chancellor of the Duchy of Lancaster, and Thomas R. Buchanan, Parliamentary Secretary to the Indian Office, resign from the English cabinet, their places being taken by Herbert Louis Samuel and the Master of Elibank, respectively.

June 26.—The Turkish Minister of Finance resigns; Djavid Bey, deputy for Salonika, is appointed his successor.

June 28.—The Emperor of Austria asks Dr. Lucacs, former Finance Minister, to negotiate with Francis Kossuth to form a Hungarian cabinet....The Cuban House passes the budget without making retrenchments.

June 29.—More than 100 suffragettes are arrested in London for attempting to storm the House of Commons.

July 1.—The Cuban Senate having failed to pass the budget, President Gomez issues a decree making effective the budget of 1908-'09, amounting to \$24,285,000....The Correctional Court of Auch threatens Archbishop Ricard with imprisonment for refusing to pay a fine imposed for an attack on secular education.

July 3.—Twenty-three members of the present and former Japanese Diet are sentenced to terms in prison for complicity in the sugar scandal.

July 7.—Colombian rebels seize Barranquilla and proclaim Valencia president; troops are sent from Bogota and martial law is proclaimed throughout the republic....President Gomez signs the Cuban lottery bill.

July 8.—A deputation of British suffragettes is accorded an audience by the Home Secretary.

July 9.—The French Chamber of Deputies, by a vote of 548 to 11, adopts a motion to ask the government to call a conference of the powers in order to obtain an agreement for tariff reductions.

July 10.—The German Reichstag adopts the financial bill which carries with it higher duties on tobacco, beer, brandy, effervescent wines, and other articles.

July 11.—Persian Cossacks and other troops



GEN. MARQUIS DE GALLIFET, OF FRANCE.

(General de Gallifet, who died on July 8, was known the world over as an expert cavalry commander.)

of the Shah are repulsed by the Nationalist forces fifteen miles from Teheran.

July 12.—France modifies the law suppressing teaching orders....Lord Roberts introduces in the British House of Lords a bill providing for compulsory military service....Ex-President Castro, of Venezuela, renounces his right to the presidency....Nineteen English suffragettes are sentenced to terms of three weeks or a month each in jail for recent disorders in London.

July 13.—The Persian Constitutional forces enter Teheran without serious opposition....The Colombian rebels at Barranquilla surrender to the government....Emperor William issues a decree proroguing the German Reichstag until autumn.

July 14.—Dr. von Bettmann-Hollweg is appointed imperial chancellor of Germany in succession to Prince von Bilow.

July 16.—Mohammed Alim, Shah of Persia, is dethroned at Teheran and the Crown Prince, Sultan Ahmed Mirza, is chosen to reign in his stead.

July 17.—The British Liberals prepare for a test of strength on the issue of the right of the House of Lords to interfere with financial leg-



ARREST OF A RIOTER AT M'KEES ROCKS, PA., BY STATE TROOPERS.

isolation....Mohammed Ali, the deposed Shah of Persia, announces his abdication....The Greek cabinet resigns and the King requests M. Rhallis, a former premier, to form a new ministry.

July 18.—The court-martial at Adana offers to hang 800 men, to sentence 15,000 for life, and to inflict minor sentences on 80,000 if the government desires, but recommends a general amnesty.

July 20.—The Clemenceau cabinet is defeated in the French Chamber of Deputies by a vote of 212 to 176; President Fallières accepts the cabinet's resignation.

INTERNATIONAL RELATIONS.

June 21.—Turkey addresses an invitation to Great Britain, France, Russia, and Italy to discuss the future of Crete....The Turkish special mission to communicate to King Edward of Great Britain the accession of Mehmed V. to the throne of Turkey arrives in London....The State Department at Washington receives assurances from Peking, Paris, and Berlin that American bankers will obtain a share of the Chinese Railway loan.

June 22.—The Albanians win a battle with Turkish troops, whose losses are 14 officers and 350 men killed.

June 24.—The French council of ministers considers the Cretan question.

June 25.—The members of the Russian Duma visiting England are received by King Edward at Buckingham Palace.

June 28.—The Czar of Russia concludes his visit to the King of Sweden.

July 1.—Orders are issued at St. Petersburg to prepare troops for the Russian expedition to Persia.

July 5.—The United States, England, and Austria refuse to recognize the Russo-Chinese agreement regarding the right of Russia to con-

trol the administration of towns along the Manchurian Railway.

July 6.—Russia obstructs China's attempt to enforce maritime customs regulations.

July 7.—The French Government decides that it is unable to accept the proposal of the United States regarding two-cent postage.

July 11.—A mob storms the Argentine legation in La Paz; fears of war involving Peru and Argentina are entertained.

July 12.—Argentina orders her minister to leave Bolivia unless full satisfaction for the recent outrages is given.

July 14.—Bolivia sends an apology to Argentina for the recent attack on the legation at La Paz....A United States revenue cutter seizes a

Japanese schooner, with a crew of eighteen men, for seal catching off the Pribylov Islands....A Spanish gunboat shells the Moorish camps near Mellila.

July 15.—Premier Clemenceau, of France, announces in the Chamber of Deputies that henceforth no foreign police will be allowed to operate on French territory.

July 16.—The selection of Charles R. Crane, of Chicago, for United States Minister to China is announced at Washington.

July 19.—Moorish tribesmen attack Spanish troops at Mellila; there are heavy losses on both sides....The Austro-Hungarian consul at Pittsburgh, Pa., begins an investigation into the conditions governing the employment of his countrymen by the Pressed Steel Car Company at McKees Rocks, Pa.

July 20.—Argentina sends a passport to the Bolivian Minister and recalls her envoy at La Paz.

OTHER OCCURRENCES OF THE MONTH.

June 21.—The *Mauretania* lowers the transatlantic eastward record by fifty minutes; the passengers reached London five days and eight hours after leaving New York.

June 22.—The centenary celebration of the birth of Charles Darwin is begun at Cambridge, England....Sixty-one new cases of cholera are reported in St. Petersburg; the disease appears in Finland....Queen Victoria, of Spain, gives birth to a daughter....Miss Maude Adams appears as Joan of Arc in the Stadium at Harvard University; about 2500 persons take part in the performance, which is witnessed by 15,000 people....The Cape Cod Canal is formally begun.

June 23.—The American Meadow Brook polo team wins its first cup match in England by nine goals to five....The combination of the Continental National Bank and the American Trust and Savings Bank, both of Chicago, hav-

ing deposits of more than \$100,000,000, is announced.

June 24.—Attorney-General Wickersham orders the dismissal of the Government's suit against the New York, New Haven & Hartford, the Boston & Maine, and other railroads, for violating the anti-trust law.

June 25.—Thirty-four deaths from cholera occur in St. Petersburg....The British Labor party issues a manifesto against the proposed visit of the Czar of Russia to England.

June 26.—The American Library Association meets at Bretton Woods, N. H.

June 27.—Verdun, owned by Baron Maurice d'Rothschild, wins the Grand Prix at Long-champs.

June 28.—Mr. Shackleton gives an account of his Antarctic expedition before the London Geographical Society....Six thousand miners go on strike in the Pittsburg, Kan., coal-fields.

June 30.—A threatened coal strike in England and Wales is averted by the work of the Board of Conciliation....More than 7000 employees of plants of the American Sheet & Tin Plate Company, a subsidiary of the United States Steel Corporation, quit work because of the "open shop" order of the company.

July 1.—Two powerful earthquake shocks occur in Messina and Reggio and the surrounding country....Orville Wright makes three successful flights in his aeroplane at Fort Myer, Va....Receivers are appointed for the Chicago, Peoria & St. Louis Railway, of Illinois....The federal grand jury finds an indictment against the American Sugar Refining Company, six of its directors, and two others implicated in the alleged conspiracy to close the Pennsylvania Sugar Refining Company's plant.

July 2.—Fire destroys the business section of Cobalt, Ont., causing a loss of \$350,000.

July 3.—Successful tests of Maxim's gun-silencer are made before German military officials (see page 234)....President Taft and his family leave Washington for Beverly, Mass....The three hundredth anniversary of the discovery of Lake Champlain is celebrated in New York and Vermont.

July 4.—A great Danish-American celebration is held at Aarhus.

July 5.—The Meadow Brook polo team wins the second and final match for the cup from British players....The Tauern Railway, connecting Gastein and Stittal, is opened by Emperor Francis Joseph, of Austria....President Taft speaks at the exercises marking the two hundred and fiftieth anniversary of Norwich, Conn.

July 6.—About 6000 men belonging to the United Mine Workers of America go on strike in the Cape Breton collieries....President Taft, Ambassador Bryce, and Ambassador Jusserand speak at the tercentenary celebration of Champlain at Ticonderoga....The National Educational Association meets at Denver.

July 9.—Announcement is made of the gift of \$10,000,000 by John D. Rockefeller to the General Education Board in addition to previous gifts, the board being empowered to dis-

pose of the principal as well as the interest of the fund.

July 10.—Forty-seven deaths and 124 new cases of cholera are reported in St. Petersburg....The International Air Navigation Exposition opens in Frankfort, Germany....The completion of the Pennsylvania Railroad tunnels under the Hudson River to New York City is announced.

July 11.—A hurricane on the Isthmus of Panama causes much damage....The celebration of the four hundredth anniversary of the birth of John Calvin is concluded at Geneva.

July 12.—The Bankers' National Bank of Chicago is absorbed by the Commercial National



Photograph, by Underwood & Underwood, N. Y.

THE CUP BROUGHT BACK FROM ENGLAND BY THE MEADOW BROOK POLO CLUB.

Bank....The steamer *John B. Cowle*, of Cleveland, is sunk in Whitefish Bay, Lake Superior, by a collision with the steamer *Isaac M. Scott* and fourteen members of the *Cowle's* crew are drowned.

July 13.—Rioting between Orangemen and Nationalists occurs in Belfast, Ireland.

July 14.—Estimates place the flood loss in the Missouri Valley at \$7,000,000, half the wheat crop having been destroyed....July wheat goes to \$1.27 a bushel on the Chicago Board of Trade....About half the force of the Pressed Steel Car Company's works at McKees Rocks, near Pittsburg, goes on strike.

July 15.—A British submarine is sunk and thirteen men lose their lives near Cromer, India, when the war vessel is sunk by a cargo steamer....In an earthquake in southern Greece twenty persons are killed and 100 injured in one village....July wheat advances to \$1.29 in Chi-

cago....Edward Payson Weston, in his seventieth year, ends his walk from New York to San Francisco in 105 days.

July 17.—British warships to the number of 150 are anchored in the Thames....The American Telephone & Telegraph Company offers to take over all the capital stock of the Bell Telephone Company, of Pennsylvania....Glenn H. Curtiss drives his aeroplane 24 7-10 miles in fifty-two minutes.

July 19.—Two additional McAdoo tunnels from Jersey City to New York are opened.

July 20.—Orville Wright makes an aeroplane flight of one hour and twenty minutes.

OBITUARY.

June 21.—Sir Andrew Lusk, 99.

June 22.—Edward John Gregory, R.A., president of the Royal Institute of Painters in Water Colors, 59....Theodore R. Wolf, State Chemist of Delaware, 59....Orrin S. Wood, who superintended the construction of the first telegraph line between New York and Philadelphia in 1845, 91.

June 23.—Captain Abraham E. Culver, U. S. N., 53....Commendatore Giovanni Caccini, the oldest official in the Italian Department of Justice, 74....Sir Alfred Jacoby, M.P., the Nottingham lace manufacturer, 57....Dr. D. J. Cunningham, F.R.S., professor of anatomy in Edinburgh University, 59.

June 24.—Sarah Orne Jewett, the author, 60....Harry S. Henry, of Philadelphia, a well-known art collector, 53.

June 25.—John Crosby Brown, the New York banker, 71.

June 26.—Col. John Cheves Haskell, of South Carolina.

June 27.—Bishop Joseph B. Cotter, of the Roman Catholic Diocese of Winona, Minn., 65....Samuel R. Campbell, president and treasurer of the New York Mills, one of the largest cotton manufacturing concerns in the country, 72.

June 28.—Israel W. Durham, former leader of the Republican organization of Philadelphia, 55....Prof. Ernst von Halle, the German economist, 41.

June 29.—Gen. George B. Cosby, one of the few surviving brigadier-generals of the Confederate army, 69....Mrs. Carrie Burnham Kilgore, the first woman to be admitted to the bar in the State of Pennsylvania, 71.

June 30.—John J. Jennings, of the New York *World*, 56.

July 1.—Prof. Clement Lawrence Smith, of Harvard University, 65.

July 5.—Arthur G. Langham, former president of the Provident Life Assurance Society,

55....John Morse Ordway, formerly professor of metallurgy at Tulane University, New Orleans, 86....Ex-Congressman Melville Bull, of Rhode Island, 55....Charles Francis Barker, for many years the world's champion checker player, 51.

July 6.—Congressman Francis W. Cushman, of the Second Washington District, 42.

July 7.—Col. Attila Cox, president of the Louisville, Henderson & St. Louis Railroad, 66.

July 8.—General Marquis de Gallifet, the French soldier, 79.

July 9.—Count Casimir Badeni, former Austrian premier, 63....The Marquis of Ripon, 82....Charles Groves, the veteran actor, 66....Capt. Phillip R. Elsworth, the modeler of yachts, 81.

July 10.—John Ferguson Hume, once a prominent Abolitionist, 79.

July 11.—Simon Newcomb, the astronomer, 74 (see page 171)....Henri François P. de Parville, scientific writer and editor *La Nature*, 70.

July 12.—Louis Loeb, the artist and illustrator, 43....Rev. John L. Milligan, D.D., for forty years chaplain of the Western Penitentiary, Pittsburg, 72.

July 13.—Gen. Frederick Phisterer, of the New York National Guard, 73....Jules Clement Chaplain, the French medallion engraver, 70....Mrs. Emily E. Williamson, of New Jersey, well known as a charity and settlement worker, 62....Count von Arco-Valley, the German Minister to Brazil, 57.

July 14.—John Goode, of Virginia, the sole survivor of the Virginia secession convention and oldest ex-member of the national Congress, 80....Prince Suleyman, a brother of the Sultan of Turkey, 49.

July 15.—Father George Tyrrell, the Jesuit modernist.

July 16.—Dr. Vittorio Raffaele Matteucci, director of the Royal Observatory on Mount Vesuvius, 49....Rt. Rev. John Shanley, Roman Catholic bishop of Fargo, N. D., 57....Rudolph Lexow, survivor of the German revolutionists of 1848, 89....Judge Francis A. Gaskill, of the Massachusetts Superior Court, 63.

July 17.—Leffert L. Buck, the civil engineer, 72 (see page 175).

July 18.—Don Carlos de Bourbon, Duke of Madrid, pretender to the Spanish throne, 61....Mrs. Susan Pierce Stevens, the author....Mrs. J. Addison Hayes, daughter of Jefferson Davis.

July 19.—Rosa Nouchette Carey, the English novelist.

July 20.—Lieut.-Commander Arthur P. Osborn, U. S. N., retired, 65....Brig.-Gen. Charles E. Compton, U. S. A., retired, 63.



THE CARTOONIST'S POINT OF VIEW.



BACK TO THE STRAIGHT AND NARROW PATH.
From the *Times-Star* (Cincinnati)

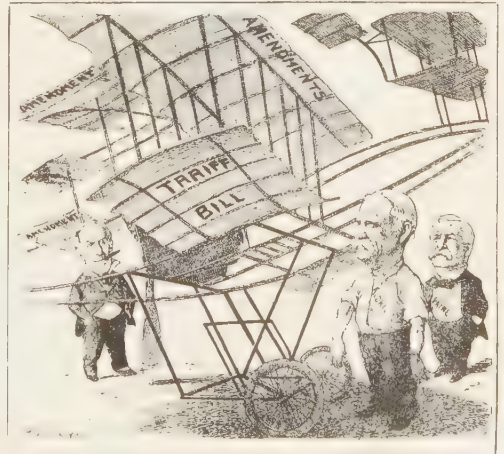
UNTIL late in July the tariff still remained of prime importance to cartoonists and the country at large. The tendency of Congressional efforts toward a "revision upward" seemed likely to be checked by President Taft, who, mindful of the Republican party's campaign pledges of last year, had worked with the party leaders for a reduction of some of

the schedules. The bearing of this situation upon party pledges is shown by Mr. Cory, of the Cincinnati *Times-Star*, in our opening cartoon, where he



THE FINANCIAL MOSES.

From the *Post-Intelligencer* (Seattle).



THE PAYNE-ALDRICH HOT-AEROPLANE ALMOST READY
FOR ITS TRIAL TRIP.

From the *Inquirer* (Philadelphia)



THAT CORPORATIONS EARNING LEVY.

"Now really, Conductor, you wouldn't charge for a mere little slip of a boy like mine, now would you?"

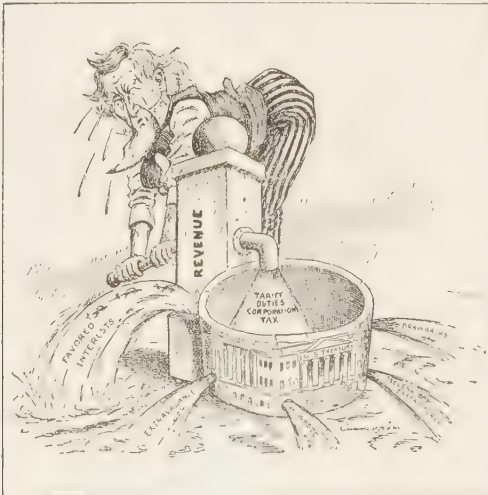
From the *Leader* (Cleveland).

Apropos of the tax of 1 per cent. which it is proposed to levy on the earnings of certain corporations.

pictures the President as leading the Republican elephant back to the straight and narrow path of duty.

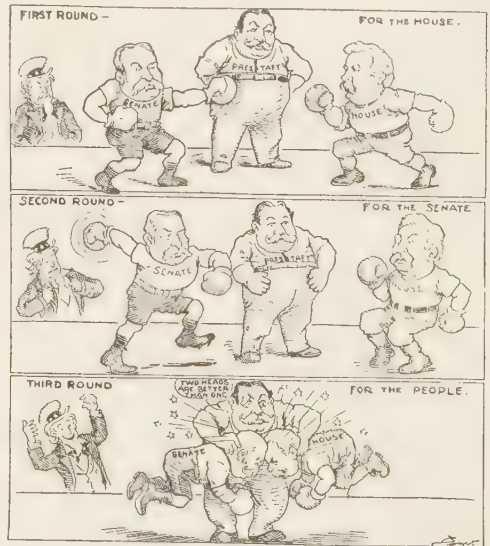
As Moses struck the rock in the wilderness, causing the water to gush forth for the thirsty Israelites, so President Taft (in the cartoon from the *Post-Intelligencer*) is striking the corporations with a tax

scheme which is expected to yield considerable revenue to the National Treasury.



UNCLE SAM KEEPS PUMPING REVENUE PRETTY HARD, BUT VERY LITTLE OF IT SEEMS TO STAY IN THE TREASURY TUB.

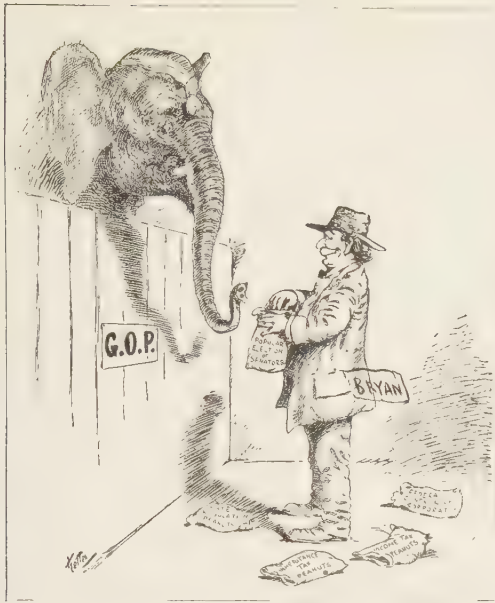
From the *Herald* (Washington, D. C.).



WHEN THE REFEREE GETS INTO THE GAME.

From the *Journal* (Minneapolis).

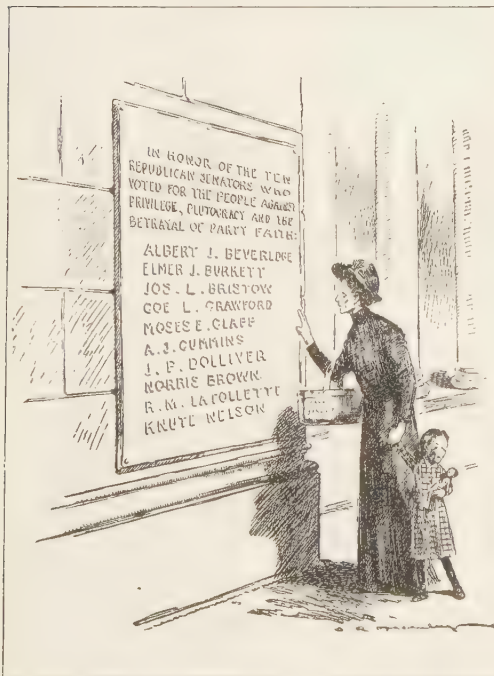
Referee Taft stood by when the House had its round with the tariff schedules and also when the Senate had its round, but in the third round he takes a hand in the fight and endeavors to bring both House and Senate in agreement.



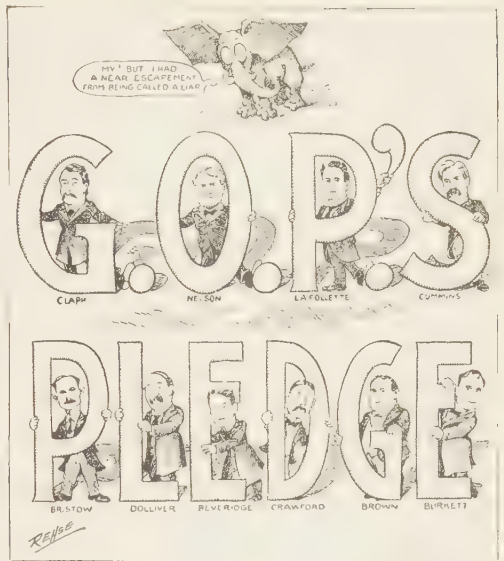
STILL FEEDING THE ELEPHANT.

From the *World* (New York).

Mr. Bryan suggested to President Taft to submit to the people the proposition for the election of Senators by the people at the same time that the income tax amendment is submitted to them.



THE ROLL OF HONOR.

From the *World* (New York).

ONLY A FEW OF THEM LEFT.

From the *Pioneer-Press* (St. Paul).

The Senators shown in this cartoon are those who held out for a downward revision of the tariff in accordance with Republican pledges. The cartoon showing "The Roll of Honor" is along the same line.



THE DECLINE OF AUTOCRACY.

From the *Tribune* (Chicago).

In this four-paneled cartoon the forcible removal of certain Eastern autocrats suggests a way of dealing with our own autocrats in the United States Senate.



A TERCENTENARY OF PEACE AND GOOD-WILL.

Once warring nations make merry at the Champlain celebration.

From the *Saturday Globe* (Utica).

After a great deal of fixing and tinkering (as is usual with flying machines) by Messrs. Aldrich, Payne, Cannon, *et al*, the tariff aeroplane will soon be ready to make a trial trip.

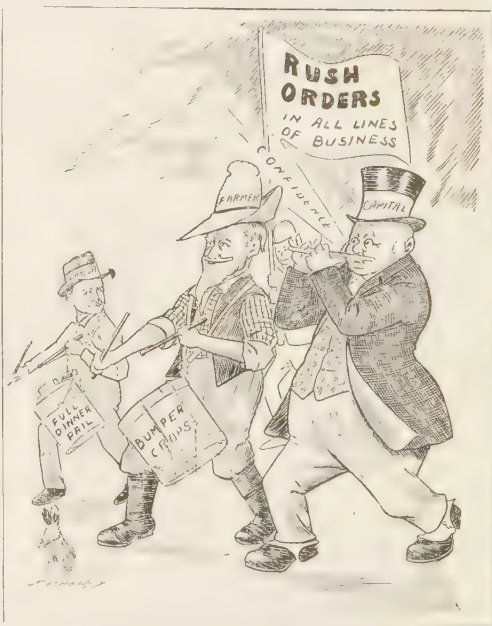
One of the principal events of the month of July was the celebration of the three hundredth anniversary of the discovery by Champlain of the lake that bears his name. Great Britain, France, and Canada, as well as the United States, took part in the exercises, which were attended by eminent personages from these different nations. Among the

speakers were President Taft, Ambassador Bryce, of Great Britain; Ambassador Jusserand, of France; Governor Hughes, of New York; Cardinal Gibbons, Senator Root, and Mr. Seth Low. The names on the streamers from the May pole indicate the historical places on Lake Champlain where the exercises were held.



THE MODERN JOAN OF ARC.

From the *Eagle* (Brooklyn, N. Y.).



THE SPIRIT OF 1909.

From the *News-Tribune* (Duluth).



"UNCLE SAM FLEND O' MINE, HE MUST HAB PL'ECE."

From the *Saturday Globe* (Utica).

Mr. Harding's cartoon, from the *Brooklyn Eagle*, gives us a humorous picture of the "Suffragette," who has been so aggressively active recently in behalf of woman suffrage, especially in England and America.

"The Spirit of 1909" cartoon, based on the familiar picture entitled "The Spirit of 1776," shows the trio of industrial forces now working for the restoration of prosperity.

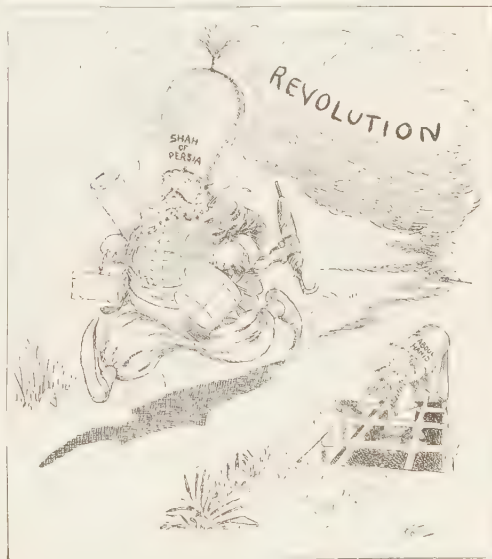
The cartoon from the *Saturday Globe*, of Utica, deals with the matter of the new loan for which China is now negotiating. American bankers desired a share in this loan to China, but this was not exactly to the liking of the European nations, who wished to assume the entire loan themselves. China, however, as shown in the cartoon, was perfectly willing to give Uncle Sam a share of his "Financial Pie."



THE NEW NURSE.

From the *Traveler* (Boston).

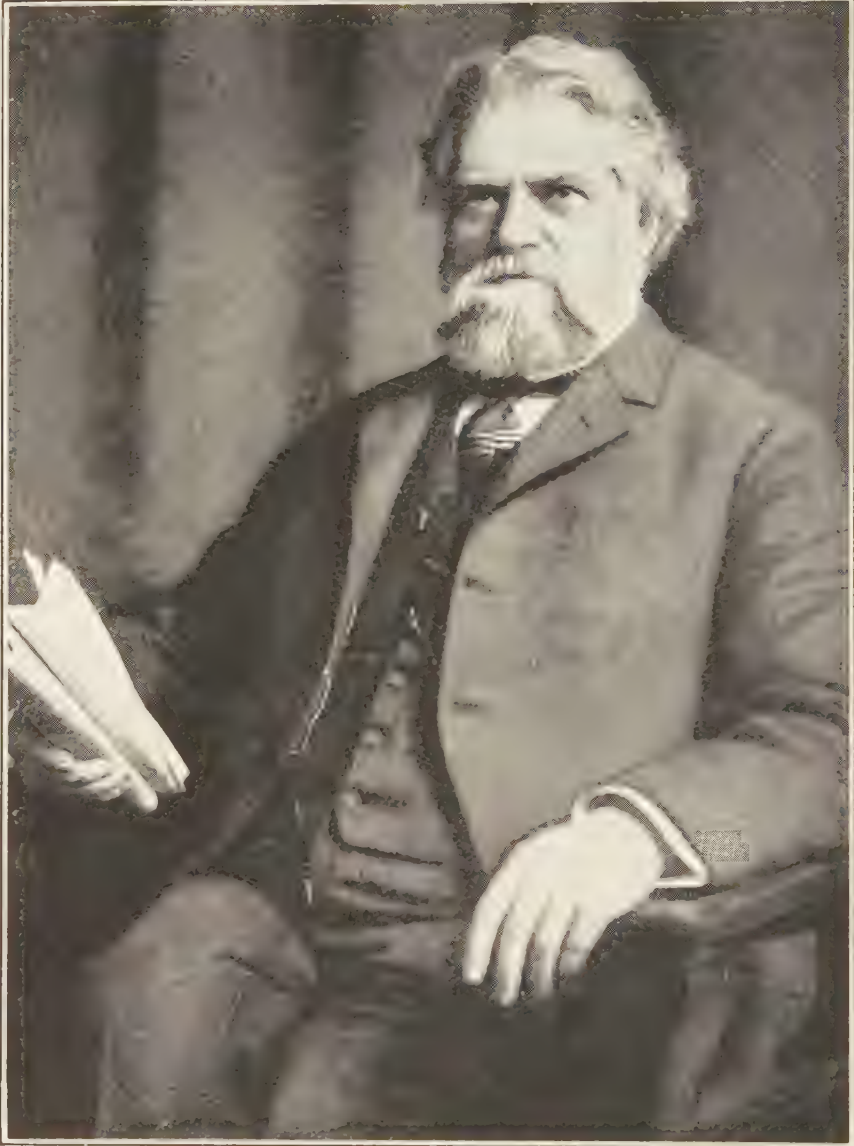
On July 14 Prince von Bülow was succeeded by Dr. Theobald von Bethmann-Hollweg as Chancellor of the German Empire.



ANOTHER MARATHON.

From the *World* (New York).

The revolution in Persia during July forced another Eastern potentate, Mohammed Ali, Shah of Persia, from his throne.



THE LATE SIMON NEWCOMB.

(Born, March 12, 1835; died, July 11, 1909.)

SIMON NEWCOMB: AMERICA'S FOREMOST ASTRONOMER.

BY ARTHUR E. BOSTWICK.

AMONG those in all parts of the world whose good opinion is worth having, Simon Newcomb was one of the best known of America's great men. Astronomer, mathematician, economist, novelist, he had well-nigh boxed the compass of human knowledge, attaining eminence such as is given to few to reach, at more than one of its points. His fame was of the far-reaching kind,—penetrating to remote regions, while that of some others has only created a noisy disturbance within a narrow radius.

Best and most widely known as an astronomer, his achievements in that science were not suited for sensational exploitation. He discovered no apple-orchards on the moon, neither did he dispute regarding the railways on the planet Venus. His aim was to make still more exact our knowledge of the motions of the bodies constituting what we call the solar system, and his labors toward this end, begun more than thirty years ago, he continued almost until the day of his death. Conscious that his span of life was measured by months and in the grip of what he knew to be a fatal disease, he yet exerted himself with all his remaining energy to complete his monumental work on the motion of the moon, and succeeded in bringing it to an end before the final summons came. His last days thus had in them a cast of the heroic, not less than if, as the commander of a torpedoed battleship, he had gone down with her, or than if he had fallen charging at the head of a forlorn hope. It is pleasant to think that such a man was laid to rest with military honors. The accident that he was a retired professor in the United States Navy may have been the immediate cause of this, but its appropriateness lies deeper.

HALF A CENTURY IN GOVERNMENT SERVICE.

Newcomb saw the light not under the Stars and Stripes, but in Nova Scotia, where he was born, at the town of Wallace on March 12, 1835. His father, a teacher, was of American descent, his ancestors having settled in Canada in 1761. After studying with his father and teaching for some little

time in his native province he came to the United States while yet a boy of eighteen, and while teaching in Maryland in 1854-'56 was so fortunate as to attract, by his mathematical ability, the attention of two eminent American scientific men, Joseph Henry and Julius Hilgard, who secured him an appointment as computer on the Nautical Almanac. The date of this was 1857, and Newcomb had thus, at his death, been in Government employ for fifty-two years. As the work of the almanac was then carried on in Cambridge, Mass., he was enabled to enter the Lawrence Scientific School of Harvard University, where he graduated in 1858 and where he pursued graduate studies for three years longer. On their completion in 1861 he was appointed a professor of mathematics in the United States Navy, which office he held till his death. This appointment, made when he was twenty-six years old,—scarcely more than a boy,—is a striking testimony to his remarkable ability as a mathematician, for of practical astronomy he still knew little.

One of his first duties at Washington was to supervise the construction of the great 26-inch equatorial just authorized by Congress and to plan for mounting and housing it. In 1877 he became senior professor of mathematics in the navy, and from that time until his retirement as a Rear Admiral in 1897 he had charge of the Nautical Almanac office, with its large corps of naval and civilian assistants, in Washington and elsewhere. In 1884 he also assumed the chair of mathematics and astronomy in Johns Hopkins University, Baltimore, and he had much to do, in an advisory capacity, with the equipment of the Lick Observatory and with testing and mounting its great telescope, at that time the largest in the world.

FIRST AMERICAN SINCE FRANKLIN TO BE
ASSOCIATE OF THE FRENCH INSTITUTE.

To enumerate his degrees, scientific honors, and medals would tire the reader. Among them were the degree of LL.D. from all the foremost universities, the gold medal of the Royal Astronomical Society of London in

1874, the great gold Huygens medal of the University of Leyden, awarded only once in twenty years, in 1878, and the Schubert gold medal of the Imperial Academy of St. Petersburg. The collection of portraits of famous astronomers at the Observatory of Pulkowa contains his picture, painted by order of the Russian Government in 1887. He was, of course, a member of many scientific societies, at home and abroad, and was elected in 1869 to our own National Academy of Sciences, becoming its vice-president in 1883. In 1893 he was chosen one of the eight foreign associates of the Institute of France,—the first native American since Benjamin Franklin to be so chosen. Newcomb's most famous work as an astronomer,—that which gained him world-wide fame among his brother astronomers,—was, as has been said, too mathematical and technical to appeal to the general public among his countrymen, who have had to take his greatness, in this regard, on trust. They have known him at first hand chiefly as author or editor of popular works such as his "Popular Astronomy" (1877); of his text-books on astronomy, algebra, geometry, trigonometry, and calculus; of his books on political economy, which science he was accustomed to call his "recreation"; and of magazine articles on all sorts of subject, not omitting "psychical research," which was one of the numerous by-paths into which he strayed. He held at one time the presidency of the American Society for Psychical Research.

CONTRIBUTIONS TO THEORETICAL ASTRONOMY.

The technical nature of his work in mathematical astronomy,—his "profession," as he called it, in distinction to his "recreations" and minor scientific amusements,—may be seen from the titles of one or two of his papers: "On the Secular Variations and Mutual Relations of the Orbits of the Asteroids" (1860); "Investigation of the Orbit of Neptune, with General Tables of Its Motion" (1867); "Researches on the Motion of the Moon" (1876); and so on. Of this work Professor Newcomb himself says, in his "Reminiscences of an Astronomer" (Boston, 1903), that it all tended toward one result,—the solution of what he calls "the great problem of exact astronomy," the theoretical explanation of the observed motions of the heavenly bodies.

If the universe consisted of but two bodies,—say, the sun and a planet,—the motion

would be simplicity itself; the planet would describe an exact ellipse about the sun, and this orbit would never change in form, size, or position. With the addition of only one more body, the problem at once becomes so much more difficult as to be practically insoluble; indeed, the "problem of the three bodies" has been attacked by astronomers for years without the discovery of any general formula to express the resulting motions. For the actually existing system of many planets with their satellites and countless asteroids, only an approximation is possible. The actual motions as observed and measured from year to year are most complex. Can these be completely accounted for by the mutual attractions of the bodies, according to the law of gravitation as enunciated by Sir Isaac Newton? In Newcomb's words, "Does any world move otherwise than as it is attracted by other worlds?" Of course, Newcomb has not been the only astronomer at work on this problem, but it has been his life-work and his contributions to its solution have been very noteworthy.

THE PROBLEM OF PLANETARY MOTIONS.

It is difficult to make the ordinary reader understand the obstacles in the way of such a determination as this. Its two elements are, of course, the mapping out of the lines in which the bodies concerned actually do move and the calculations of the orbits in which they ought to move, if the accepted laws of planetary motion are true. The first involves the study of thousands of observations made during long years by different men in far distant lands, the discussion of their probable errors, and their reduction to a common standard. The latter requires the use of the most refined methods of mathematical analysis; it is, as Newcomb says, "of a complexity beyond the powers of ordinary conception." In works on celestial mechanics a single formula may fill a whole chapter.

This problem first attracted Newcomb's attention when a young man at Cambridge, when by analysis of the motions of the asteroids he showed that the orbits of these minor planets had not, for several hundred thousand years past, intersected at a single point, and that they could not, therefore, have resulted, during that period, from the explosion of a single large body, as had been supposed.

Later, when Newcomb's investigations along this line had extended to the major planets and their satellites, a curious anomaly

in the moon's motion made it necessary for him to look for possible observations made long before those hitherto recorded. The accepted tables were based on observations extending back as far as 1750, but Newcomb, by searching the archives of European observatories, succeeded in discovering data taken as early as 1660, not, of course, with such an investigation as this in view, but chiefly out of pure scientific curiosity. The reduction of such observations, especially as the old French astronomers used apparent time, which was frequently in error by quarter of an hour or so, was a matter of great difficulty. The ancient observer, having no idea of the use that was to be made of his work, had supplied no facilities for interpreting it, and "much comparison and examination was necessary to find out what sort of an instrument was used, how the observations were made, and how they should be utilized for the required purpose." The result was a vastly more accurate lunar theory than had formerly obtained.

During the period when Newcomb was working among the old papers of the Paris Observatory, the city, then in possession of the Communists, was beset by the national forces, and his studies were made within hearing of the heavy siege guns, whose flash he could even see by glancing through his window.

Newcomb's appointment as head of the Nautical Almanac office greatly facilitated his work on the various phases of this problem of planetary motions. Their solution was here a legitimate part of the routine work of the office, and he had the aid of able assistants,—such men as G. W. Hill, who worked out a large part of the theory of Jupiter and Saturn, and Cleveland Keith, who died in 1896, just as the final results of his work were being combined. In connection with this work Professor Newcomb strongly advocated the unification of the world's time by the adoption of an international meridian, and also international agreement upon a uniform system of data for all computations relating to the fixed stars. The former still hangs fire, owing to mistaken "patriotism"; the latter was adopted at an international conference held in Paris in 1896, but after it had been carried into effect in our own Nautical Almanac, professional jealousies brought about a modification of the plan that relegated the improved and modernized data to an appendix.

Professor Newcomb's retirement from ac-

tive service made the continuance of his great work on an adequate scale somewhat problematical, and his data on the moon's motion were laid aside for a time until a grant from the newly organized Carnegie Institution in 1903 enabled him to employ the necessary assistance, and the work has since gone forward to completion.

IMPORTANCE OF SUCH RESEARCHES.

What is the value of such work, and why should fame be the reward of him who pursues it successfully? Professor Newcomb himself raises this question in his "Reminiscences," and without attempting to answer it directly he notes that every civilized nation supports an observatory at great annual expense to carry on such research, besides which many others are supported by private or corporate contributions. Evidently the consensus of public opinion must be that the results are worth at least a part of what they cost. The question is included in the broader one of the value of all research in pure science. Speaking generally, the object of this is solely to add to the sum of human knowledge, although not seldom some application to man's physical needs springs unexpectedly from the resulting discoveries, as in the case of the dynamo or that of wireless telegraphy. Possibly a more accurate description of the moon's motion is unlikely to bring forth any such application, but those who applaud the achievements of our experts in mathematical astronomy would be quick to deny that their fame rests on any such possibility.

NEWCOMB AS AN ECONOMIST.

Passing now to Professor Newcomb's "recreation," as he called it,—political economy, we may note that his contributions to it were really voluminous, consisting of papers, popular articles and several books, including "The A B C of Finance" (1877) and "Principles of Political Economy" (1886). Authorities in the science never really took these as seriously as they deserved, possibly because they regarded Professor Newcomb as scarcely orthodox. Some of his distinctions, however, are of undoubted value and will live; for instance, that between the fund and the flux of wealth, on which he insists in his treatises on finance. As to Professor Newcomb's single excursion into fiction, a romance entitled "His Wisdom the Defender," it is perhaps sufficient to say that, like everything he attempted, it is at least worth notice. It is a sort of cross be-

tween Jules Verne and Bulwer Lytton's "Coming Race."

SKEPTICAL AS TO AIRSHIPS.

Professor Newcomb's mind was comprehensive in its activity. One might have thought that an intellect occupied to the last in carrying out one of the most stupendous tasks ever attempted by a mathematical astronomer would have had little time or little energy left for other things; but Newcomb took his rest and pleasure in popular articles and interviews. Only a short time before his death he published an essay on aeronautics that attracted wide attention, drawing the conclusions that the aeroplane can never be of much use either as a passenger-carrier or in war, but that the dirigible balloon may accomplish something within certain lines, although it will never put the railways and steamships out of business. In particular, he treated with unsparing ridicule the panic fear of an aerial invasion that so lately seized upon our transatlantic cousins.

LOGICAL, THOUGH UNCONVENTIONAL.

Personally, Newcomb was an agreeable companion and a faithful friend. His success was due largely to his tenacity of purpose. The writer's only personal contact with him came through the "Standard Dictionary,"—of whose definitions in physical science Newcomb had general oversight. On one occasion he came into the office greatly dissatisfied with the definition that we had framed for the word "magnet,"—a conception almost impossible to define in any logical way. We had simply enumerated the properties of the thing,—a course which in the absence of authoritative knowledge of their causes was the only rational procedure. But Newcomb's mind demanded a logical treatment, and though he must have seen from the outset that this was a forlorn hope, his tenacity of purpose kept him, pencil in hand, writing and erasing alternately for an hour or more. Finally he confessed that he could do no better than the following pair of definitions,—"*Magnet*, a body capable of exerting magnetic force," and "*Magnetic Force*, the force exerted by a magnet." With a hearty laugh at this beautiful *circulus in*

definiendo he threw down his pencil, and the imperfect and illogical office definition was accepted.

Logical as he was, however, he was in no sense bound by convention. His economics, as has been said, was often unorthodox, and even in his mathematical text-books he occasionally shocked the hide-bound. I well remember an interesting discussion among members of the Yale mathematical faculty just after the appearance of Newcomb's text-book of geometry, in which he was unsparingly condemned by some because he assumed in certain elementary demonstrations that geometrical figures could be removed from the paper, turned over and laid down again,—the so-called "method of superposition," now generally regarded as quite allowable. Of course, a figure can be treated in this way only in imagination, and for this reason, probably, the method was not employed by Euclid. Its use, however, leads always to true results, as anyone may see; and it was quite characteristic of Professor Newcomb that he should have taken it up, not having the fear of the Greek geometers before him.

Such was Newcomb; it will be long before American science sees his equal. Mathematical genius is like an automobile,—it is looked upon in two opposing fashions as one has it or has it not. A noted educator not long ago announced his belief that the possession of a taste for mathematics is an exact index of the general intellectual powers. Not much later, another eminent teacher asserted that mathematical ability is an exotic,—that one may, and often does, possess it who is in other respects practically an imbecile. This is scarcely a subject in which a single illustration decides, but surely Newcomb's career justifies the former opinion rather than the latter; the amount and kind of his mental abilities along all lines seemed to run parallel to his mathematical genius, to resemble it in quantity and in kind.

The great volumes of astronomical tables without which no astronomer may now venture upon a computation are his best monument; yet the general reader will longer remember, perhaps, the lucid expositor, the genial essayist, the writer of one of the most readable autobiographies of our day.





THE LATE L. L. BUCK, CIVIL ENGINEER AND EMINENT BRIDGE-BUILDER.

AN ENGINEER AND HIS LIFEWORK.

ONE of the greatest masters of the art of the engineer that this country of inventive and resourceful minds has yet produced was the late Leffert Lefferts Buck, who died at his home near New York on July 17. Mr. Buck, among many important engineering projects, was notably identified with the linking of New York and Brooklyn by great bridges. He was the designer and builder of the second of these Brooklyn bridges and the consulting engineer of the third. His steel-arch bridges at Niagara Falls are regarded as landmarks in the history of that type of construction.

His pioneer work in Peru and Ecuador as the builder of difficult pieces of railway involving high bridges and viaducts gave him a reputation on the west coast of South America for marvelous skill and efficiency under difficult circumstances that no other man has equaled in the Andean regions. His modesty and unselfishness were as great as his courage and his professional skill. In all his qualities he was an honor to the self-sacrificing profession of civil engineering, which has done so much to place our country in the forefront of modern nations.

Mr. Buck was born in 1837, at Canton, in northern New York, where his father helped to found the Canton Academy. When the war broke out he was a student at the St. Lawrence University, but he enlisted at once in the Sixtieth New York, serving throughout the war and taking a gallant part in a large number of the most important battles from Antietam to Chancellorsville, Gettysburg, Lookout Mountain, and so on, finally with Sherman in his march to the sea. He came out of the war with the rank of captain. His father before him had served in the war of 1812; his grandfather as a mere boy had been with Ethan Allen at Ticonderoga and served in the campaign against Burgoyne; and his great-grandfather, Isaac Buck, had served under General Wolfe at Quebec in 1759 and later had died in the Quebec campaign during the first winter of the Revolutionary War. Thus Mr. Buck had come of a sturdy and brave stock, typical of all that was best in New England and northern New York. He cared much for these family traditions, and for the memories of his own army career.

Within a few weeks after being mustered out of the army he went to the Rensselaer Polytechnic Institute at Troy, where he took a three years' engineering course, graduating in 1868. He had always shown a strong mechanical and mathematical talent, and had, while a boy, learned the machinist's trade and served for a time as a journeyman. His success as an engineer was immediate. For several years he was assistant engineer in the Croton Aqueduct department, at New York, and from about 1870 to about 1880 he was variously engaged in the most assiduous constructive work, part of the time in Peru and a part of it in the service of Western railroads and of the Suspension Bridge Company at Niagara Falls.

His connection with the Niagara Falls bridges continued until his death. Twenty years after his first bridge reconstructions over the famous gorge, he replaced the old railroad suspension bridge with a double-track and double-deck railroad and highway steel arch of 550 feet span, almost unequaled for its qualities of strength and permanence. Ten years ago, also, he replaced the upper suspension bridge at Niagara Falls with a steel arch of 840 feet span, the largest of its kind in existence anywhere.

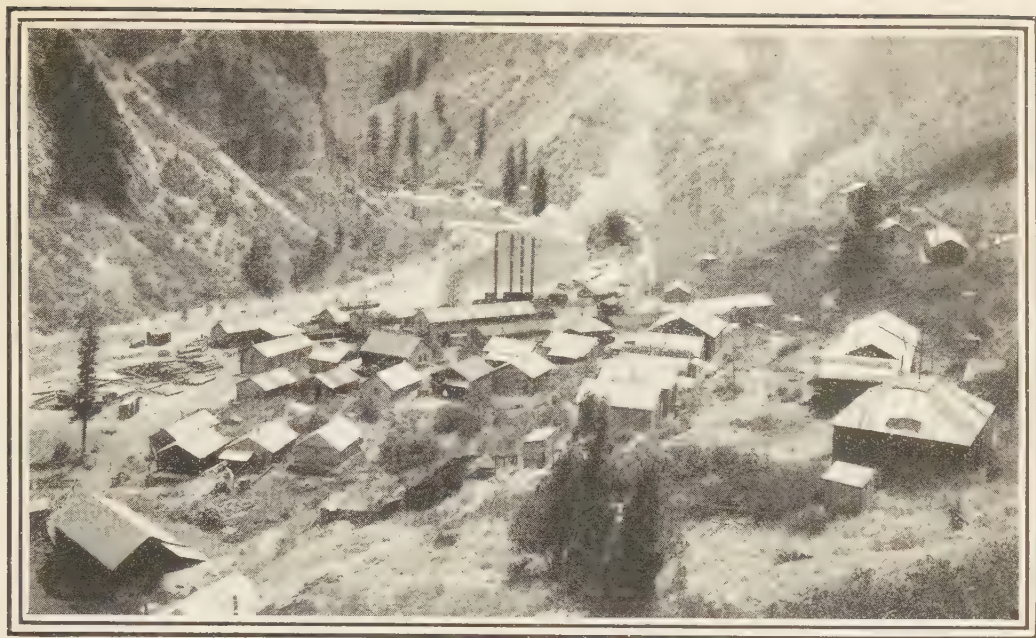
In the next decade he designed bridges for Mexican railroads, did important work on the Northern Pacific at the time of its completion in 1883, and built various bridges in the far Northwest, in the State of New York, and in other parts of the country, while maintaining an office in New York as a bridge designer and consulting engineer.

In a great variety of ways Mr. Buck's engineering knowledge has been brought into requisition for more than twenty years past in the development of tunnel and bridge facilities in and about New York. He had much to do with the project for connecting the Pennsylvania Railroad with New York by tunnels in the earlier stages of that enterprise, and through his long connection with the Bridge Department of the city government he was either in control or else in close touch with the larger engineering undertakings of the metropolitan district.

This brief recital of the range and character of Mr. Buck's professional work is intended only to suggest some of the chief constructive tasks that filled a busy career. Ten years ago, at the invitation of the Government, he made a design for the proposed memorial bridge across the Potomac at Washington. As yet that project is in abeyance, but some day the bridge will be built, and it is altogether likely that in its structural and engineering character it will be founded upon Mr. Buck's design.

Few men leave behind them achievements so enduring and so magnificent as those which form a monument to the genius, training, and indomitable courage of this simple-hearted and unassuming man, who, when he could help it, would never permit a single word to be said in his praise, and who was too much absorbed in his work ever to seek material rewards. The men of his own profession knew his worth.

A. S.



THE EAST, OR GUNNISON PORTAL, UNCOMPAHGRE RECLAMATION PROJECT.

WATERING THE UNCOMPAHGRE VALLEY.

ONE OF THE GOVERNMENT'S WONDER-WORKING RECLAMATION PROJECTS.

BY ARTHUR CHAPMAN.

WHEN President Taft late this summer opens the Gunnison tunnel, on the western slope of the Colorado Rockies, he will mark the completion of the most spectacular project undertaken by the Government under the Reclamation Act.

The Uncompahgre project, as this stupendous irrigation feat is known, will reclaim more than 150,000 acres of land in the Uncompahgre Valley, water from the Gunnison River being diverted, through a six-mile tunnel, under a 2000-foot mountain, to make the reclamation possible. The project is fifth in importance among the twenty-seven irrigation works begun by the Government under the Reclamation Act, figuring the number of acres to be reclaimed. It is third in cost, it being estimated that the expense of constructing the tunnel and the necessary canals will amount to nearly \$4,000,000. It is the first of the larger projects to near completion, and it has been vis-

ited by irrigation experts from foreign governments, who have been amazed at the natural difficulties that have been overcome.

The situation that has made necessary the Gunnison tunnel is peculiar in the extreme. For thirty miles the Gunnison and Uncompahgre rivers are parallel, separated by low-lying mountains and high mesas. The Gunnison is one of the large rivers of Colorado and has a tremendous natural flow which is little diminished during the hot months of summer. The river flows through a narrow valley, however, which offers little opportunity for the rancher, even in its widest vistas. Generally the Gunnison roars and foams at the bottom of deep, rocky canyons. The longest of these is the celebrated Black Canyon of the Gunnison, which is traversed part way by the Denver & Rio Grande Railroad. A long stretch of this canyon, however, has defied the hardy engineers of the railroad service. It is a narrow gorge,



THE GUNNISON TUNNEL, DRIVEN THROUGH SOLID ROCK,
PRIOR TO TIMBERING AND CONCRETING.

whose cliffs rise perpendicularly to a height of 2000 feet. This gorge is hardly 100 feet across at the top, in places, showing how abruptly it drops to the foaming river 2000 feet below. This part of the Black Canyon has been traversed only once, when A. L. Fellows and a party of Government hydrographers and topographers risked their lives by making the survey for the Uncompahgre irrigation project.

BORING A MOUNTAIN BARRIER.

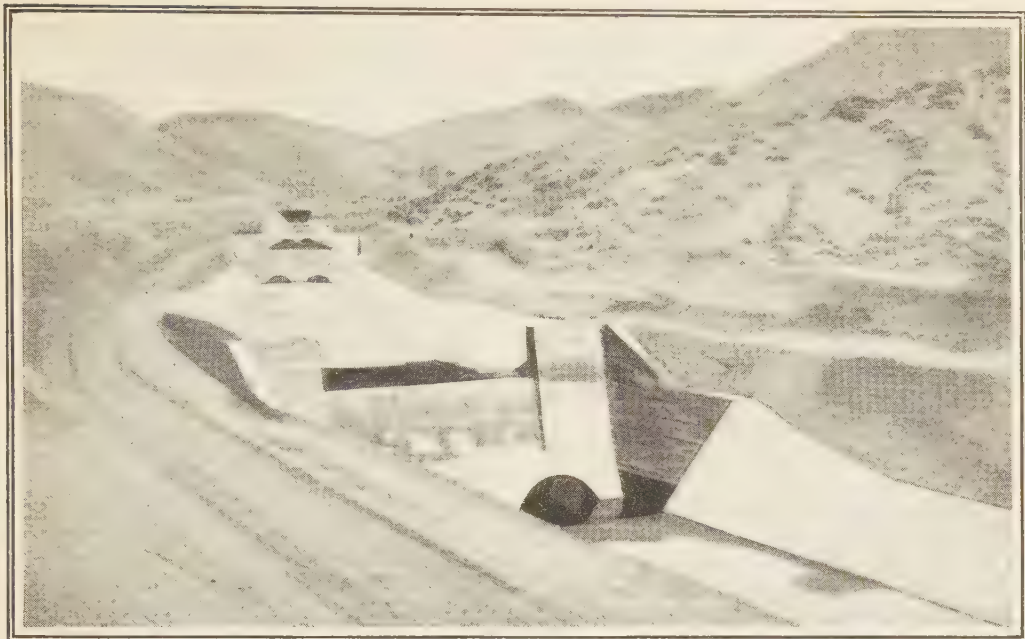
How to get the waters of the Gunnison across the dividing ridge of mountains to the Uncompahgre Valley was the problem that confronted the Reclamation Service. The Uncompahgre is a small stream with an annoying habit of dwindling to a mere thread in midsummer, when water for irrigation is most needed. It flows through a sunny, mesa-terraced valley, forty miles long by twelve miles wide, at an average elevation of 5500 feet. This valley has been demonstrated to be one of the greatest places in the world for the raising of fruit as well as less fancy crops. It is bathed in perpetual sunshine, and the soil has been classified by Government soil experts as uniformly perfect, ranging from a black loam in the river bottom to red loam on the west side of the Uncompahgre, and a heavy gray soil on the east side. Drainage of the gray soil is not so rapid as in the gravelly red soil, but it has been demonstrated that it is equally valuable for the raising of fruit.

The State of Colorado attempted to build a tunnel to carry the Gunnison water to the Uncompahgre Valley several years ago, but abandoned the project after it had been demonstrated that such a tunnel would cost millions instead of the modest estimate made by the sanguine projectors. After the Reclamation Act became a law, enabling the Government to carry on reclamation projects from the funds secured from the sale of public lands in the arid and semi-arid States, the Uncompahgre project was taken up in earnest. The costly and dangerous survey, of which mention has been made,

was carried out, and it was determined to build a tunnel six miles long. The 2000-foot mountain, under which the tunnel was to be built, slopes gently on the Uncompahgre side, but the drop on the Gunnison side is terrific. A wagon road, 16 miles long, was built over this mountain. In some places the grades on the Gunnison side are 23 per cent.,—that is, the road drops 23 feet in every hundred. Down this road, by a series of switchbacks,—as a continuous road down such a slope would be impossible,—heavy machinery has been hauled and lumber, coal, and supplies transported. A power plant has been erected at the portal and a little town, of frame and tar-paper, has been built for the accommodation of the Government employees who have been carrying on the work. A similar town, given the Spanish name of Lujane, has been built at the Uncompahgre portal. Several hundred men are kept steadily at work in three shifts of eight hours each. The men live in these little Government towns. They have their community boarding-house, their hospital and club rooms, and there are schools for the children and stores where the wives do their shopping.

PERILS OF WATER AND CHOKE DAMP.

The work on the Gunnison tunnel was started in February, 1905. Private contractors essayed the task first, but had hardly begun the work when it was demonstrated that the task was of far greater magnitude



THE CONCRETE DROPS AT WEST PORTAL OF THE GUNNISON TUNNEL, WHERE 10,000 HORSEPOWER WILL BE DEVELOPED.

than they had supposed. The work was then taken out of their hands, and has been carried on by the Reclamation Service, under the direction of I. W. McConnell and C. T. Pease, engineers. The work has gone steadily on, despite almost unheard-of obstacles. Heavy flows of water have been struck. In December, 1906, such a large body of water was encountered that streams shot forty feet into the tunnel through the drill holes, knocking the men from the machines. A heavy flow of carbon-dioxide, or choke damp, accompanied the water, and the workmen fled for their lives. Work had to be abandoned in this heading for weeks on account of the choke damp, and could only be resumed after a ventilating shaft, 680 feet deep, had been sunk.

CONSTANT PUMPING REQUIRED.

Five hundred feet of the tunnel was driven through a bed of fossils, consisting mostly of the shells of extinct sea-creatures. So numerous were these shells that the natural strength of the shale was impaired, necessitating a special system of timbering. On several occasions flows of hot water have been struck, raising the temperature in the tunnel headings to an uncomfortable degree. One of the disasters, that nearly resulted in loss of life, was a cloudburst that

flooded the west, or Cedar Creek portal. A mighty volume of water rushed down the hill, tearing out the expensive concrete work at the portal. Another difficulty has been the constant flow of water in the tunnel. This causes little inconvenience at the Uncompahgre heading, as the natural incline of the tunnel carries off the water, but pumping is necessary in order to keep the Gunnison portion of the work from inundation. Pumps are kept constantly at work, the average discharge being 250,000 gallons per 24-hour day, and sometimes reaching as high as 750,000 gallons. During the spring months, when it has been almost impossible to haul coal to the Gunnison portal, work has been suspended on that side, and the pumps alone have been kept going. Work on the Gunnison side has been slow on account of the greater natural difficulties encountered. During an average month, in which no great obstacles have been encountered, it has been possible to construct 500 feet of tunnel,—350 feet in the Uncompahgre heading and 150 feet in the Gunnison heading.

CONCRETE CONSTRUCTION.

The tunnel will be a model of concrete construction and will be built to last through ages. The giant bore is $10\frac{1}{2}$ feet wide and



LOOKING TOWARD WEST PORTAL, SHOWING CROSS-SECTION OF CANAL.

12 feet high, built in the form of an arch. It is first timbered to form, the system of timbering being costly and heavy, and calculated to resist tremendous strain. Concrete mixers are kept at work in the tunnel, the cement and gravel being poured from above through shafts. Electric tramways penetrate to the tunnel headings, the shale and muck being loaded on cars as fast as it is dislodged by shots at the end of each shift. These cars are also used to carry the concrete to the men who are employed following up the timberers. The concrete is poured in forms between the heavy timbers, and mile after mile of the tunnel is transformed into a smooth, echoing vault, down which the heavy little tramcars rattle and grind, while the heavy flow of seepage water glides smoothly along the cement floor on each side of the elevated track.

DELIVERY OF WATER THROUGH TUNNEL AND CANALS.

The carrying capacity of the Gunnison tunnel will be 1300 cubic feet per second. The water will be taken from the bottom of the Gunnison River, and will rush through this concrete tunnel,—a solid body 9 feet high and $10\frac{1}{2}$ wide. Inasmuch as the Uncompahgre River flow is only 200 second-feet at its highest stage, it is easy to imagine what a revolution this great body of water from the Gunnison will create when it is transferred under the mountain to the semi-arid valley the Government intends to reclaim.

From the Cedar Creek, or Uncompahgre, portal the water from the tunnel will be delivered into an immense canal, with a greater cross-section than the Erie Canal, 13 miles

long and of concrete construction wherever there is danger of seepage owing to soil conditions. There will be five short tunnels on this canal. The Uncompahgre River bed will be used for the main flow of the water from the Gunnison, and there will be an East and a West canal, watering both sides of the valley. These canals will be built along the extreme edges of the mesas, and will thus bring practically the entire arable area of the valley under irrigation. The Government has also secured the rights to existing ditches in the valley, so that practically the entire Uncompahgre system will be under Government control.

LAND WITH WATER RIGHTS FOR SETTLEMENT.

The cost of the Uncompahgre project, like all other work started under the Reclamation Act, will come out of the land reclaimed. It is estimated that the cost of water rights under the Gunnison tunnel will be about \$35 per acre, which will be divided into ten payments at the will of the purchaser. Unlike most of the Government projects, there will be very little "homesteading" in the Uncompahgre Valley, as most of the land was taken up years ago. There is a small amount of available land in the area to be reclaimed, but most of it is privately owned, and will be sold outright to prospective settlers, thus doing away with the five-years' residence clause of the Homestead Act. Settlement of some of the projects finished under the Reclamation Act has been slow, on account of this five-years' residence clause, but it is believed that the Uncompahgre Valley will be settled with a rush because there is no such obnoxious feature in the way.

A RICH FRUIT AND VEGETABLE SECTION.

The remarkable development of the fruit industry was what called the attention of reclamation officials to the Uncompahgre Valley and led eventually to the reclamation of this entire region. About 20,000 acres have been reclaimed under the flow of the Uncompahgre River, and a large portion of this land is in orchards. In the vicinity of Montrose, a beautiful little city of 6000 population, which is the metropolis of the valley, there are 2000 bearing orchards. One of these is the celebrated 288-acre orchard of John Ashenfelder,—the largest orchard in the West. Mr. Ashenfelder grows apples, apricots, peaches, prunes,

cherries, his crop for 1908 being 50,000 boxes of apples and 20,000 boxes of small fruits.

The wonderful record made in the growing of common crops also astounded the Government experts who investigated the territory to be reclaimed in the vicinity of Montrose. The potatoes grown in this valley rival the world-famed Greeley potatoes in quality, and one Montrose farmer has a record of 13,200 bushels, raised on $16\frac{1}{2}$ acres,—an average of almost 800 bushels to the acre. The best record for onions near Montrose is 1800 sacks, from $4\frac{1}{2}$ acres of ground, netting a profit of \$800 per acre.

The best record for fruit in the Uncompahgre Valley was made on the ranch of the late Judge Caswell. The yield from this ranch was phenomenal, but one acre in particular attracted the attention of fruit experts. J. F. Kyle, one of the most experienced fruit buyers in Colorado and head of the Montrose Fruit and Produce Association, offered the judge \$1000 for the apples on the fifty-two trees growing on this one acre of ground. The offer was for apples on the trees,—not in boxes,—but it was refused. The owner picked and

boxed the apples himself, keeping a careful record of the fruit from this one acre. He received \$1250 for the fruit, so he afterward told Mr. Kyle, but when the cost of picking and boxing the apples was deducted from the gross amount, he had just \$1000 profit,—exactly the sum offered for the fruit on the trees.

ELECTRIC POWER IN ABUNDANCE.

These facts would indicate that the Reclamation Service experts are not in error when they declare that, within a few years after the opening of the Gunnison tunnel, the Uncompahgre Valley will be the agricultural "show place" of the country. The person who stands at the tunnel outlet, and lets his gaze sweep over the broad, mesa-terraced valley, finds it easy to visualize the scene which has been pictured by the Reclamation officials. The entire valley will be brilliantly lighted by electricity, as upward of 10,000 horsepower will be generated from a series of five concrete drops, forming a series of dams and giving tremendous water power, the fall from the west portal of the tunnel to the Uncompahgre River bed being 214 feet. The broad mesas, which stretch, amphitheater-like to the shining Uncom-

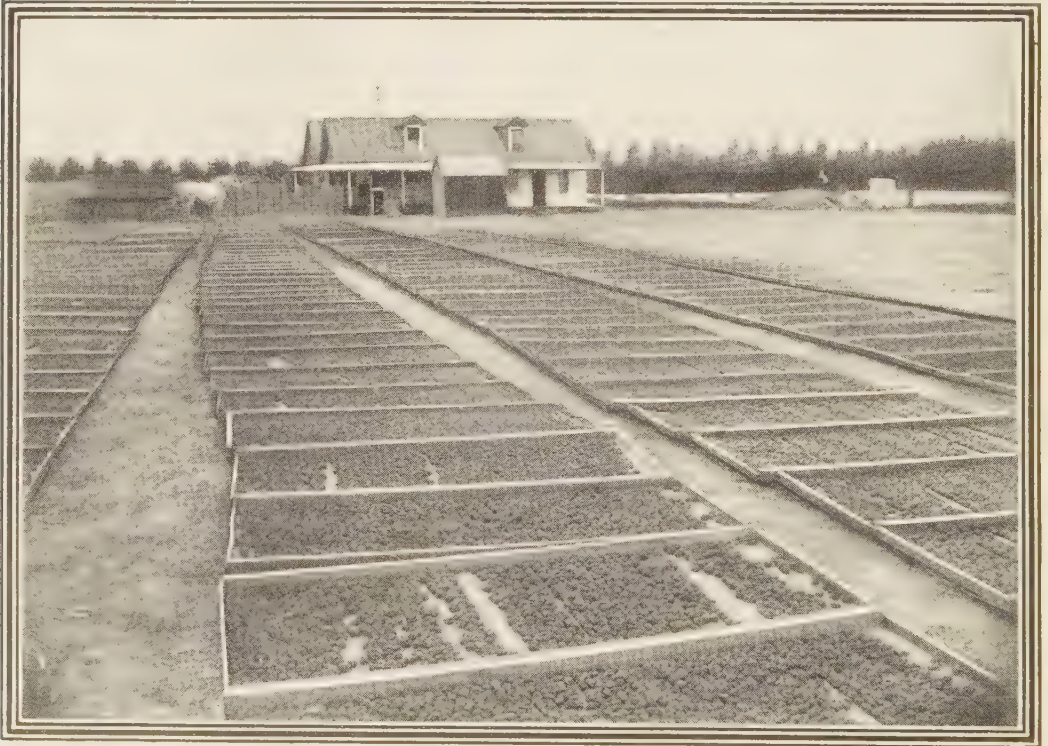


TWELVE MILES OF THIS CANAL WILL CARRY WATER FROM THE WEST PORTAL OF THE GUNNISON TUNNEL TO THE UNCOMPAHGRE RIVER BED.

pahgre in the center of the valley, will be covered with small ranches. It is estimated that the farm unit of the Uncompahgre project will not be above 10 acres, as this is all the average rancher can care for under the intensive system made necessary by irrigation. This means an ideal, closely knit farming community, in which loneliness will be an impossibility.

Down the length of the valley will be operated a trolley system, run by power generated from the tremendous flow of water through the Gunnison tunnel. Fruit canning factories and other business institutions will be operated by the same cheap power. Back of the agricultural mesas, with their highly developed farms, will stretch a vast grazing country, over which now range great herds of cattle and bands of sheep. In the distance shine the wonderful San Miguel Mountains, the highest and most majestic in Colorado, from whose peaks, crowned with perpetual snow, a cool breeze always blows in the hottest days of summer.

The men of the Reclamation Service who have built the wonderful tunnel that is to make the Uncompahgre fairy story come true are not irresponsible dreamers. They have made no step without the most searching investigation. If there had been a single drawback in climate or soil, the Uncompahgre project never would have been started. As it is, the project which President Taft will open late this summer cannot fail to mark a new era in intensive farming in the United States. It will demonstrate, as men have never demonstrated before, what the magic touch of water means to the soil of that land which Daniel Webster once declared, in the United States Senate, to be a hopeless desert. To take this desert land of the Uncompahgre Valley, which is now silvered with the glint of sagebrush alone, and make it the most highly productive land in the world, by bringing water under a tremendous mountain from a stream six miles away, is a feat that will seem more like parlor magic than evolution.



DRYING PRUNES ON THE ASHENFELDER RANCH, NEAR MONTROSE.

NEW TESTS FOR BUILDING CONSTRUCTION.

BY GUY ELLIOTT MITCHELL.

(Of the United States Geological Survey.)

AMERICAN civilization has developed a number of highly specialized and costly institutions which, while they lead the world in equipment and efficiency, are things to be in reality rather ashamed than proud of, since they are merely the outgrowths of great lack of development along other lines. A striking example of this is seen in the fire-fighting organizations of the United States. These are admittedly by far the best in the world; but they have simply reached their high state of excellence in order to enable us to combat dangers arising from conditions in building construction which are the worst in the world.

The fire losses of the country for the past year were over \$200,000,000, or about \$2.50 per capita, while the additional cost of maintenance of fire departments and of excessive insurance premiums swells the figure to \$500,000,000. In the six leading European nations the fire losses are 33 cents per capita. This applied to the United States would reduce our fire losses to the comparatively small sum of \$26,000,000. The cause of this difference lies in the material of which we build our houses. This invites conflagrations, and it is solely our own fault that we are burning up and paying out needlessly every year one-half of the value of the buildings erected that year. Tinder boxes! Fire traps! Such are the structures that in the majority of cases Americans erect, although a few of our buildings may be considered models. In no country in the world, however, is substantial and fire-resistant building material so cheap as it is in the United States.

Foreign buildings, on the other hand, are put up with the intention that they shall stay. They are, as a rule, more substantially built in every particular, and the material used is far more fire-resistant. The entire water-supply of London at the disposal of her fire department would be barely sufficient to put out such fires as may occur in any of our good-sized towns.

American fires during 1907 caused the death of 1450 persons, besides injuring 5650

others, and destroyed in whole or part 165,250 buildings, the average damage to each being \$1667. At a recent meeting of engineers Mr. C. W. Baker drew a graphic picture of this national waste and its accompanying tragedies. He suggested the arrangement of these 165,250 buildings in a row, side by side, each occupying a 65-foot lot, and found that they would constitute a solid line all the way from New York to Chicago. Picture to yourself, he said, driving along this terribly desolated street. At every thousand feet you pass the ruins of a building from which an injured person was rescued, while every three-quarters of a mile there is the blackened wreck of a house in which some one was burnt to death. Picture further, in the beginning, the fire starting at one end of this street on January 1. In spite of the work of the fire-fighters the fire steadily eats its way along at the rate of three miles a day for a week, for a month, for a whole year. And at the end of this year did the conflagration cease? No, it began on a new street one thousand miles long, and raged through the following year, destroying this street. And this same destruction is going on to-day. The picture is a vivid one, but it is truthful.

Supplemental to these great losses there is a large aggregate loss of life and treasure from building collapses, due to carelessness and also lack of knowledge of the strength of building materials.

SCIENTIFIC STUDIES IN LIEU OF GOVERNMENT INSURANCE.

The Government has been spending annually about \$40,000,000 in building construction of various kinds, while the expenditures of the country at large for similar purposes range between \$1,000,000,000 and \$1,200,000,000. The Government owns about \$500,000,000 worth of buildings, and, since it carries no insurance, Congress has deemed it wise to appropriate a small percentage of what it would expend in insurance charges for scientific investigation and tests

of various structural materials. These tests, made by the United States Geological Survey, are conducted primarily in order that Government architects and engineers may have definite information regarding the strength and the fire-resisting qualities of the different materials which they use in the construction of Government buildings. Congress has, in fact, been very particular in specifying that no tests should be made, except for the Government; but as the results and conclusions are made public there is no limit to the use to which they may be put by engineers and constructors outside of the Government, and as a matter of fact the general public is by far the greatest gainer in these conclusions reached.

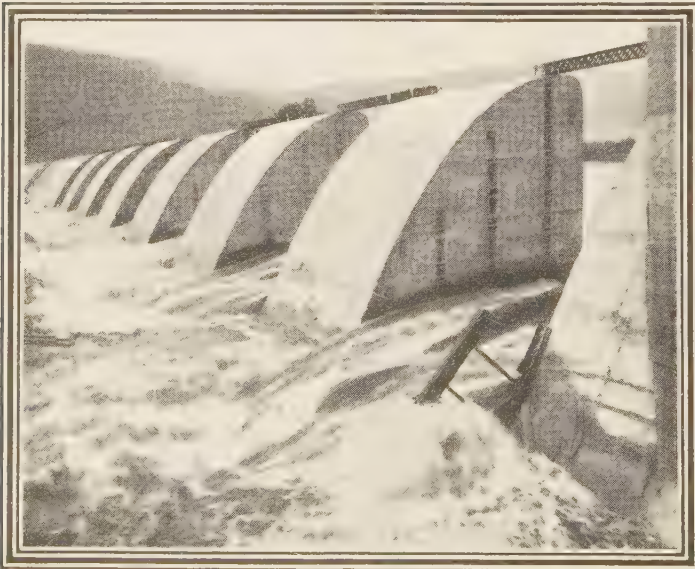
Structural experts declare that with the newness of this country the science of construction has not become so well settled as in other countries; that our general ignorance of the strength and fire-resistant qualities of materials coupled with municipal carelessness is responsible for the enormous losses; and that as a result of this ignorance hundreds of cities and villages have building codes that would be considered a disgrace to a well-regulated European city. They declare, however, that a general awakening to the real situation is to be noticed in many sections which augurs well for the future. In dozens of cities new building codes are now being projected, and municipal authorities interested

in this subject of reducing fire losses and rendering their cities more safe are eagerly seeking the findings of the Government in these investigations. The results are being seen in nearly every new code that is adopted, and, while it is stated that the fire losses may be expected to increase within the next few years under the present conditions, the work being done by the Government will ultimately have the effect of reducing these losses until we approach the minimum figures now prevailing in Europe.

For the past five years the Geological Survey has maintained a structural materials division, and highly important results have been obtained. The Supervising Architect of the Treasury, who has charge of all Government building construction throughout the United States, makes constant calls upon the Survey, while many tests are made in connection with such federal engineering works as the dam and concrete canal building of the irrigation Reclamation Service and the Isthmian Canal Commission. In addition to these specific tests a great number of experiments are being made to determine broad scientific principles bearing upon the strength and fire-resisting qualities of concrete, brick, stone, tile, etc. With the technical details of the tests the average citizen may not be enlightened nor interested, but with the general results he must be, for they open up the vista of a new and vastly better

era in American construction.

A few years ago James J. Hill called attention to the fact that at the present rate of increase in the use of structural steel the high grade iron ore deposits of the country would be exhausted within a comparatively short time. Secretary of Agriculture James Wilson rejoined that even if the iron ores were depleted the nation would still have an inexhaustible supply of natural building material, and he pointed with some pride to the new \$3,000,000 marble and brick Temple of Agriculture, in which he stated there was not



THE CONCRETE DAM UNDER CONSTRUCTION AT McCALL'S FERRY,
SUSQUEHANNA RIVER, PA.

(Spaces through which water is flowing are to be filled.)

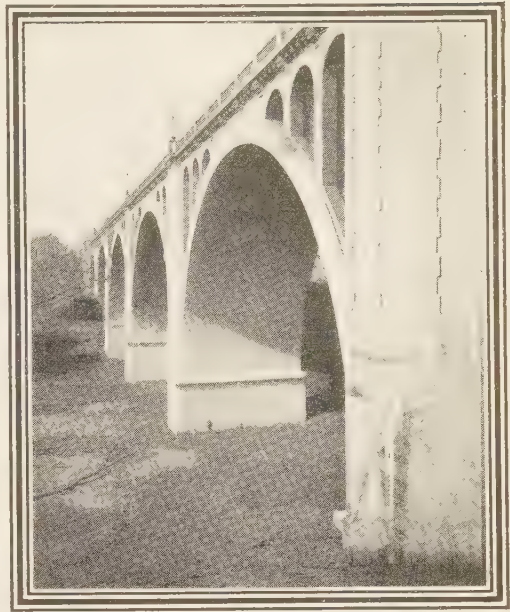
enough iron used to make a barn-door hasp. The stone quarries of the country are undoubtedly exhaustless and the clay deposits likewise; these form a resource of the country whose value it is impossible to even estimate, but there is a material which is destined to play a part more important than stone or even clay, in the erection of the fire-proof and everlasting buildings of the future,—namely, concrete.

THE COMING BUILDING MATERIAL.

Concrete is composed of cement, sand, and fine rock or gravel. Its manufacture is as old as the Roman Empire, but it is only of late years that Portland cement has been known; and that the wonderful combination of cement and steel,—reinforced concrete,—has become an important factor in building operations, especially in supplanting structural steel. So far as the supply is concerned and likewise the value of concrete as a building material, its position as a competitor of stone or as a supplement to stone in building operations is in most instances unassailable, while the reinforced concrete beam and column have, in the opinion of many engineers, great advantage for certain purposes over steel framing. The constituents of concrete are not only unlimited in quantity, but they are widely distributed, so as to be cheaply procurable in every section of the country; and when properly made it seems to be not only the equal, but in many respects the superior, of the very best building stone, excepting probably the question of appearance. Moreover, it is useful in a score of ways where stone and brick cannot be economically employed. Sand and rock or gravel are, of course, present in every State in the Union in absolutely inexhaustible quantities, and the materials for the manufacture of cement are only slightly less widely distributed and plentiful.

GREAT INCREASE IN CEMENT PRODUCTION.

The growth of the cement industry in the United States has been one of phenomenal rapidity. Ten, even five, years ago the business of making cement was confined to a number of comparatively small mills. To-day the output and consumption is upward of 50,000,000 barrels annually, valued at a little over \$1.00 a barrel, and cement constitutes one of the ten leading mineral products of the United States. Concrete is coming into general use in great building structures and huge office buildings, aqueducts,



THE GREATEST ALL-CONCRETE BRIDGE IN THE WORLD.

(The \$1,000,000 Connecticut Avenue Bridge, Washington, D. C., across Rock Creek Park, 1421 feet long, 130 feet high, 52 feet wide, 80,000 cubic yards of masonry.)

bridges, etc., for which purposes it is reinforced with steel wires or rods, while for houses and similar structures it is used in the form of hollow blocks, several times larger than bricks. It has replaced, in hundreds of thousands of miles, flag-stones and bricks for sidewalks; it is used to line sewers, conduits, irrigation canals, for building dams, silos, for making sanitary barn and stable floors, and in a hundred other instances where stone or brick might be used were they not too expensive, or where they cannot be used to advantage. Concrete replaces stone because it is cheaper and better than wood, because, although its first cost is greater, when properly proportioned, it is practically everlasting.

The recent increase in cement production in the United States is shown by the following figures:

	Barrels.		Barrels.
1898.....	12,000,000	1904.....	31,000,000
1899.....	15,000,000	1905.....	40,000,000
1900.....	17,000,000	1906.....	51,000,000
1901.....	20,000,000	1907.....	52,230,000
1902.....	25,000,000	1908.....	52,775,000
1903.....	29,000,000		

Of this 1908 production, 48,785,000 barrels was Portland cement. These figures, however, do not show its total consumption. Importations in 1907 were over 2,000,000

barrels against 900,000 barrels exported, giving a net consumption of 53,363,255 barrels of 380 pounds each.

As recently as 1895 Portland cement production was less than 1,000,000 barrels a year. At that time, however, what is known as natural cement, a product entirely different and much inferior to the Portland cement, was produced to the extent of about 8,000,000 barrels. This natural cement reached its maximum production in 1899 with nearly 10,000,000 barrels. Since then it has steadily decreased.

With increase in production the price of Portland cement has steadily decreased. In 1880 the price was in the neighborhood of \$3 a barrel; by 1890 it averaged about \$2 a barrel, and since 1900 it has been in the neighborhood of a dollar a barrel. In 1908 the average price was only 85 cents a barrel.

Some investigations now being made with a view to utilizing by-products of cement manufacture may result within the next few years in a considerable revolution in the business and a great contribution to industrial development.

The structural materials division of the Geological Survey found a wide field awaiting its investigations in concrete, brick, and other building supplies. Previously it had been with engineers and architects largely a matter of experience and judgment as to the strength and fire-resistant qualities of even the older building materials,—brick, stone, tile, etc., to say nothing of the newcomer, concrete.

STRUCTURAL TESTS OF GREAT ECONOMIC IMPORTANCE.

As an example of this, one of the largest brick manufacturers on the Atlantic Coast, in answer to an inquiry as to the crushing strength of his brick, said that he did not know, except that they had not built a wall so high that it exceeded the strength of his brick. When he reaches the point of practical test there will be a building collapse. The consequence has been that conservative engineers have allowed very liberally in the amount used of these materials, especially concrete; and, in fact, as shown by the Survey tests, excessively, in order to be on the safe side. "From the work already done by the Government," says Dr. Joseph A. Holmes, of the Survey, "it is estimated that at least 10 per cent. in the total cost of building construction work of to-day can easily be saved by a more thorough knowledge of the

strength, fire-resisting and other qualities of building materials. This would mean a saving to the people of this country of not less than \$100,000,000 yearly."

The San Francisco earthquake and resulting fire which burned up 2600 acres of closely built city property,—the greatest fire in the history of the world,—afforded an unexampled opportunity for the study of the behavior of various building materials, and it is a matter of congratulation that the Geological Survey had at the time an appropriation available for such an investigation. An exhaustive bulletin, published on the subject, constitutes a great contribution to construction information. Structural steel, it is stated, subjected to terrific heat behaved satisfactorily where it was properly protected by fireproofing; where not so protected it failed miserably. Good Portland cement concrete won a triumph for itself in fireproofing in San Francisco, for, wherever well made and properly laid upon steel girders and columns, it protected the metal. Examination showed also that it protected well against rust. The heat to which it was subjected was very great, in places common mortar being fused and iron work in walls melted. Brick laid in Portland cement mortar also furnished an excellent fireproof covering. There was but one large building in San Francisco of reinforced concrete, but it is a notable fact that this structure was practically unharmed either by the earthquake or the fire, although an adjoining brick building was badly injured by the former and afterward destroyed by fire.

ITALY WILL PROFIT.

The recent utterance of the Italian Ambassador is highly significant of the value of the government's investigations into the subject of structural materials. Impossible as he felt it to express the debt of gratitude that his country owed the American people for their generous contributions to the Italian earthquake sufferers, and further to the American Government for its liberal money appropriation and assistance, yet far above all these, he stated, was the scientific knowledge placed at his country's disposal by the United States Geological Survey,—the conclusions reached from an exhaustive study by that bureau of the behavior of the various building materials in the San Francisco earthquake and the accompanying fire.

It is the confident belief of the Government engineers that the increasing use of

concrete, brick, and other clay products will not only greatly cut down fire losses and insurance rates, but that it will be an important factor in averting the threatened timber famine, and give the country a chance to restore its depleted forests. Already these materials have supplanted lumber in a host of different ways, and more avenues are being opened each day for their use.

CONCRETE REPLACES WOOD.

The relation of the increasing use of cement to the diminishing supply of timber was the subject of some interesting correspondence recently between the Director of the Geological Survey and the Chief Forester. Director Smith, in a letter to Mr. Pinchot, quoted from a statement of a large Philadelphia firm to the effect that it would be difficult to estimate what the additional drain upon the lumber supply of the country would have been had not cement, of late years, come into such general use. Forester Pinchot replied that concrete and other wood substitutes are undoubtedly affecting the price of lumber, although our industrial progress has been so great that our requirements for every kind of structural material have increased tremendously. We are using, he stated, at the present time, more lumber per capita than ever before, and probably twice as much as we did fifty years ago. The conclusion cannot be escaped, therefore, that in the future we must depend more than in the past upon other materials than wood, for certain purposes at least.

In the building of great irrigation dams and many miles of canal in the West enormous quantities of cement have been used by the Government. In most cases this has been purchased in open market; but in one instance, at least, that of the building of the Roosevelt dam across the Salt River gorge in Arizona, the Government found it profitable, owing to the heavy transportation charges, to make its own cement, erecting a \$100,000 cement mill and utilizing material found immediately at hand for the 250,000 barrels of cement needed in this great structure. The walls of the Salt River canyon are of tough sandstone, and, as the chief engineer of the Reclamation Service has stated, the dam when completed, 280 feet high, will join the precipitous sides of this gorge and become literally a part of the everlasting rock itself.

Considerable has been heard of Inventor Edison's plan for making for workingmen



UNDAMAGED REINFORCED CONCRETE STRUCTURE AT MILL'S COLLEGE, NEAR OAKLAND, CALIFORNIA.

(This building was within a few feet of a brick building that was badly racked by the earthquake.)

cheap concrete houses in blocks, by the dozen or score. There would seem to be no question of the feasibility of such a plan. Individual block-concrete houses are now built at far less cost than those of stone, and a recent apparently authentic statement indicates that Mr. Edison is giving the matter more than casual thought. He proposes to design indestructible metal molds and to construct the houses throughout of reinforced concrete. Such houses, according to Mr. Edison, would be practically fire-proof, water-proof, and vermin-proof, and, therefore, sanitary. He proposes individual building lots and variety in the molds with a cost of about \$1200 per house, when built in sufficiently large groups, and in locations favorable to the procurement of concrete materials.

Further important basic developments may be expected in the cement industry. For instance, sea-water and the strong alkali soils and ground-waters of portions of the West attack the ordinary cement, in some instances having practically eaten out sewers and irrigation masonry. To study this problem the Geological Survey has established a



TESTING A CONCRETE BEAM TO THE BREAKING POINT.

(The 200,000-pound testing machine of the United States Geological Survey.)

plant at one of the Atlantic seashore resorts where the action of the sea-water on piers of various cement combinations can be fully studied.

GREATEST TESTING MACHINE EVER BUILT.

Over 25,000 tests have been made by the Technologic branch of the Survey under the supervision of Engineer Richard L. Humphrey of plain and reinforced concrete beams, columns, and blocks, under every possible condition, to determine their tensile and crushing strength and fire-resisting qualities. The concrete was manufactured at the testing plant with various brands of cement, sand, gravel, and stone, obtained from all parts of the country. It is believed that the published results of these tests clearly indicate to users of cement and of concrete where they can most conveniently and cheaply procure the requisite sands, gravel, and broken stone, and how these should be mixed with the cement to attain the best results in strength for each group of materials. To accomplish these tests a number of heavy machines have been used, several of 200,000 and 300,000 pounds,

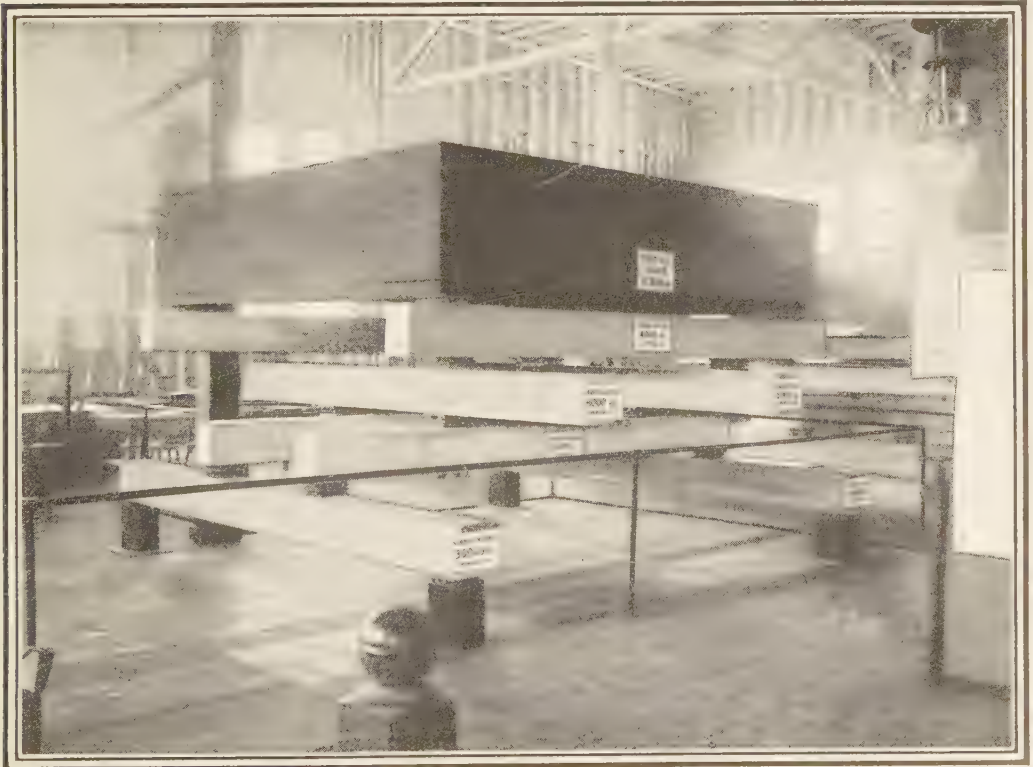
and one of 600,000 capacity. There is now nearing completion, also, at Pittsburg, the largest machine in the world for testing the strength of structural materials used in great buildings and engineering works. This machine will exert a maximum pressure of 10,000,000 pounds. It will stand some 80 feet above a solid concrete foundation, and be housed in a structure 100 feet in height, with elevators running to the top so that the engineers may examine the distribution of the loads in the columns being tested at any point, and may also detect the first sign of weakening. When the great bridge at Quebec collapsed two years ago, with shocking loss of life, as well as great destruction of property, the need of an adequate testing machine was keenly appreciated. There was then no method of testing the heavy steel columns used in this structure, such as this machine will provide. Had this machine been available to the engineers of the Quebec Bridge that accident would probably never have happened. Here, again, the country at large will be the greatest beneficiary, although this powerful testing apparatus was acquired by

the Geological Survey primarily for the purpose of testing large blocks of stone, beams, and columns of concrete, and other material used in the construction work of the Government. The federal Government is the largest builder in the world, and it is a matter of simple economy in the expenditure of its money that there should be a definite knowledge by its engineers of the strength of the material used. During the present and the next few years it is estimated that the Government will expend about \$70,000,000 per annum in the construction of the most important and far-reaching building and engineering works undertaken by any government at any time.

"The testing of construction materials in this huge machine," said Dr. J. A. Holmes, the technologic expert in charge of this work, "will enable us to definitely determine their relative strength, safety, adaptability and durability, and to show how the quantity of each material used in construction may be safely diminished, thus reducing the cost of

the construction work." Within a short time, this costly machine, in the results which it is expected to develop, should many times pay for itself.

"In the past," said Dr. Holmes, "it has been necessary to determine the strength of large columns on the assumption of the values obtained from testing smaller columns to the breaking point; but this method is not conclusive. In the case of stone, for instance, small pieces are generally, if not always, without the usual quarried defects and seams which are to be found in large blocks, and such tests as have been made show that the strength of the stone decreases as its size increases. In the erection of large buildings, and, in fact, any large structures, an accurate knowledge of the strength of the columns and beams used is, of course, a matter of the highest importance. There is no machine in the world to-day with capacity to test a chord anywhere near the size of that which failed in the Quebec Bridge, or of the size of that in the recently completed Blackwell's Island



STATIC TEST OF REINFORCED CONCRETE BEAMS.

(These beams are theoretically capable of withstanding the loads given them. It is proposed to leave them under this strain for twenty years to observe sags, etc. Such long-time tests have never before been made.)

Bridge, connecting New York and Brooklyn. The Survey's new machine will have capacity to test pieces of one-half the full size of such large chords to within the elastic limit of the material, and this will give the necessary information which is so badly needed by engineers in the erection of such great structures."

SIGNIFICANCE OF THE CLAY-PRODUCTS INDUSTRY.

With the constantly increasing importance of clay products as structural material,—the value of the 1907 output in the United States being \$150,000,000 and constituting one of the leading minerals,—the outlook for the use of better building material is apparent. Statistics just compiled show that of the building permits issued last year in the forty largest cities in the United States about 40 per cent. were for buildings of fire-resisting material. Philadelphia reported but 45 permits for wooden buildings, and, while Seattle reported 7777, this was due largely to the low cost of lumber at this point. The Survey has recently created a clay products, or "Ceramic," section to make an especial study of this group of building materials, under the direction of the brilliant engineer, Albert V. Bleininger. The products which come under this line of investigation are the various bricks, hollow and glazed, tiles and conduits, sewer pipe, fire-proofing terra cotta, floor and roofing tiles, porcelain insulators, and other structural goods submitted to the Survey by the construction bureaus of the Government.

Bricks are as old as civilization. The children of Israel in Egypt were required to make "bricks without straw," and to-day in the United States this important building material varies in quality from the sun-dried Mexican "adobe" of the far Southwest to the vitrified bricks used in modern office buildings, and for street paving, so hard as to resemble flint.

A special feature of the work of the Geological Survey has been a series of elaborate and rigorous fire tests of bricks in comparison with other classes of building materials. A large number of panels composed of building materials, including concrete blocks, common, hydraulic pressed, and sand-lime bricks, various kinds of terra cotta, tiles, sandstone, granite, marble building stones, etc., were

given a severe fire test followed by water. The panels were made to serve as one side of a furnace and heated to 1700 degrees F. for two hours. They were then swung outward and deluged with streams of water, played upon them from a hose under high pressure, the treatment thus resembling fire and fire-fighting conditions. The temperatures reached, it is stated, would hardly be attained in an ordinary fire, though they might be in a conflagration.

BRICK A VERY RELIABLE MATERIAL.

"While these tests are not conclusive," said Director George Otis Smith, of the Survey, "being but the beginning of a general and exhaustive investigation, they have brought out a number of important facts. The brick panels probably withstood the tests better than any other material, and the hydraulic pressed brick made the highest record. Little damage was apparent after the quenching. The natural building stones behaved for the most part in an unsatisfactory manner, emphasizing the results of the San Francisco fire."

The reports show that concrete behaved well in the tests, the granite concrete the best. The rapid heating of the face of the concrete while the back remained cool caused some cracking, but it is believed that this can be avoided by using metal reinforcement which would distribute the effect of the expansion. The tests also brought out clearly the low rate at which heat travels through concrete, which is one of the most desirable qualities in materials intended for fireproofing purposes. A very interesting feature of this fire-water test was where linen tags were placed in the hollow concrete blocks when they were molded. The tags were found to be undamaged after the tests.

Important results have thus been attained by the Government investigations of building materials for America, even during the brief term of such activity; but the work is only upon the threshold of its usefulness. It is fitting that these broad, expensive undertakings should be carried forward by the general Government, for the return is twofold; first, to the Government itself, as the greatest individual builder, and, second, to the people, who are in reality the Government, but in their individual capacity unable to undertake such exhaustive experiments.

CHECKING THE RAVAGES OF "LOCO."

AN IMPORTANT INVESTIGATION BY THE BUREAU OF PLANT
INDUSTRY.

BY C. DWIGHT MARSH.

(In charge of the field experiments.)

IF one were to ask a Western stockman what, in his opinion, was the greatest obstacle to success in his business he would unhesitatingly answer "loco," and would go on to tell of his own experiences, or those of his friends, in which not only had there been serious losses, but even bankruptcy. Over and over again have men gone out of business because of these weeds, considering themselves lucky if they could manage to sell out to some "tenderfoot" before the hour of total loss had arrived.

In a single season, in some districts, as many as 50 to 75 per cent. of the horses have died, and many of those that survive are worse than useless. Cattle become emaciated, acquire a solitary habit, and soon leave their bones to be bleached by the brilliant sun of the plains. It is a pitiable sight to see,



THE CHARACTERISTIC ATTITUDE OF A BADLY LOCOED STEER.

(Notice the depressed head, legs braced wide apart, and general appearance of dejection.)

one of these sick steers standing alone with lowered head and staring eyes, the picture of dejection, remaining almost motionless hour after hour and even day after day, without even ambition enough to go to water. Eventually it falls to rise no more, expiring after a few feeble kicks. If one of these steers is approached it may not move until one is close to it, when, instead of attempting to run away, it may charge upon man or horse with lowered and shaking head. After two or three lunges it may be overcome with weakness and fall, perhaps not to rise again.

Horses are still more erratic in their movements. When suddenly startled they rear, the legs flying out in an aimless way as though they were hung on universal joints and all the possibilities of movement were being exercised at one time. Frequently the animal will fall over backward; if it is strong enough to rise again it may walk off with a peculiar stilted motion, "walking high," as the term is among the stockmen. In going over a slight obstruction it may leap high in the air, and in going through a door, if it will go through the door at all, it is apt to crouch as though it feared the door were not

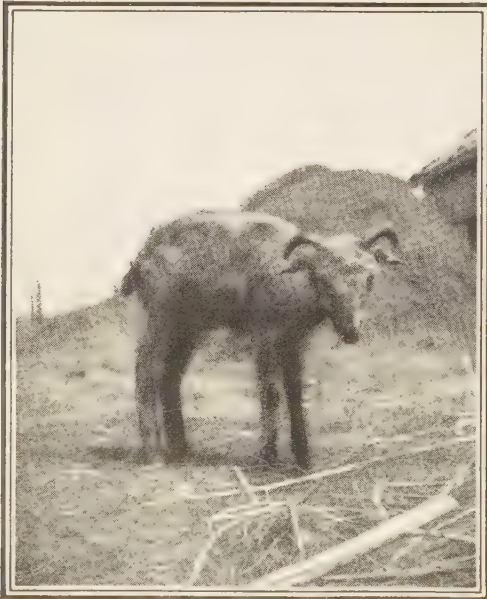


THIS SHOWS THE CHARACTERISTIC ATTITUDE OF A LOCOED HORSE WHEN SUDDENLY STARTLED.



A LOCOED HORSE, IN THE LAST STAGES OF THE DISEASE, IS REARING AT THE SUDDEN APPARITION OF A HAT.

high enough. If driven, the horse may occasionally shy violently; it cannot be backed or led and, when started forward, has a tendency to continue in a straight line at the same gait until it meets with some obstruction. The cowboy says he is "plumb locoed," using the Spanish word meaning crazy, and perhaps no better term could be used. Sheep, too, fall victims to the same disease, although their actions are not so spectacular. It is impossible to tell how heavy are the annual losses from this cause, but the figure expressing them must be not thousands, but hundreds of thousands of dollars.



A LOCOED SHEEP.

(In the last stages of the disease, from which there is no possible hope of recovery.)

What is the cause of this disease? The cowboy says it is the "loco" plant, and will tell you that the animal gets the same kind of passion for the plant that a man gets for "booze," that after acquiring the habit it will eat nothing but loco until death puts an end to its misery. He will point out as loco plants one or more species of leguminous plants which are common in the semi-arid regions of the West.

POPULAR NOTIONS OF "LOCO."

The belief in the poisonous character of the loco plant is not a new thing, for descrip-



THE CHARACTERISTIC WALKING ATTITUDE OF THE SAME HORSE.

(Notice the long mane and tail, the extreme emaciation, and the peculiar high-stepping attitude.)

tions of its poisonous effects have been written many times in the last quarter of a century. With matter-of-fact descriptions are woven more or less romantic stories coming from the fascinating regions of the deserts of the Southwest. We are told that gay Mexican señoritas have had recourse to the loco plant in order to rid themselves of husbands that had ceased to be objects of affection and who were unfortunate enough to stand in the way of other loves. We are told of settlers using the loco plants for food with resultant insanity and death. There is a tradition in Mexico that the insanity of the Empress Carlotta was produced by loco surreptitiously administered.

Not all stockmen, however, were agreed in regard to the poisonous properties of the loco weeds. Some said that the disease was the result of insufficient food, and in some circles it was quite the fashion to laugh about the loco "fake."

The loco disease has been the subject of investigation by a large number of scientific men. There have been many trips of observation through the loco country; loco plants have been the subject of chemical and pharmacological examination, and more or less elaborate feeding experiments have been carried on in the field. While field investigators found locoed animals, though not in any great numbers, they failed to find a clear connection between the weed and the disease. It was noticed that animals were most likely to become locoed when the feed was short, and the majority of these investigators were inclined to be very skeptical about the poisonous character of the weed. The reports of autopsies were contradictory and served to confirm the doubt of loco poison. Moreover, the chemical and pharmacological examinations were very contradictory, most of the investigators failing to find any evidence of poisonous compounds, although some claimed to loco animals by extracts of the weed.

THE GOVERNMENT STUDIES THE LOCO PLANT'S PROPERTIES.

Somewhat elaborate feeding experiments on sheep led to the definite conclusion that so-called locoed sheep were afflicted with parasites which caused all the symptoms popularly ascribed to loco poison. But in spite of these reports the majority of the stockmen still claimed that there was a poison in the plants which caused the disease, and the matter was considered of so much importance that a thorough investigation was deemed advisable to determine once for all whether these plants were poisonous or not, and if they were proved poisonous to devise some means for the relief of the stockmen. This work was inaugurated under the general direction of Dr. Rodney H. True, of the Bureau of Plant Industry, four years ago. The work was planned to include a thorough investigation of the country afflicted with loco poisoning, with a field experiment on a somewhat extensive scale which should test the effect of feeding the plants upon horses, cattle, and sheep. This field work, under the direction of the

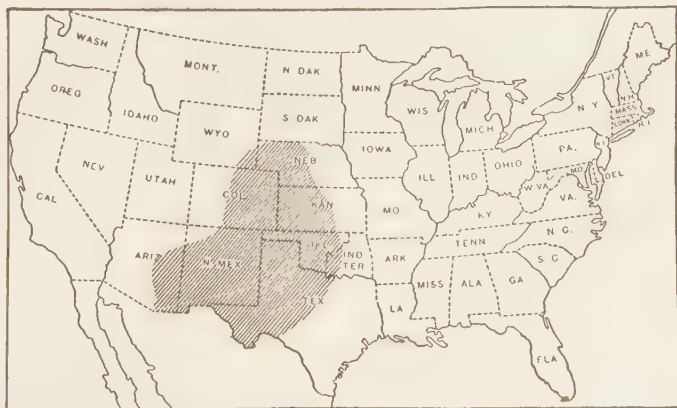
writer, was to be carried on, not for a few weeks, but for the entire summer season, and was to be continued several seasons if it seemed to be necessary. Coincidentally with the field work, a chemical and pharmacological study of the plants was to be made in the laboratories at Washington, under the direction of Dr. A. C. Crawford.

The field work was located in Colorado, which has, perhaps, suffered from loco more than any other State, possibly not so much because of the abundance of the loco as from the abundance of the cattle.

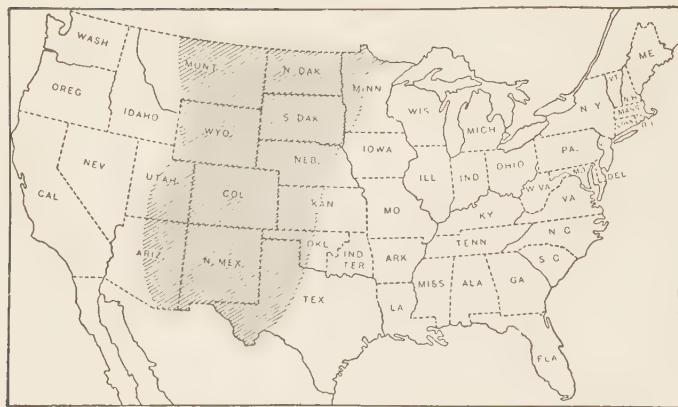
THE TWO BEST-KNOWN LOCO PLANTS.

A large number of plants have been called loco plants, but most commonly two species have been called by this name. One, the *Astragalus mollissimus* of the botanists, is a perennial leguminous plant growing from Nebraska south through the plains region. It grows in patches in the depressions in the plains, and while commonly found cannot be said to "cover the country" as some plants do. It is a pretty plant, with rather inconspicuous purple flowers and leaflets, so thickly beset with hairs as to give it a silvery appearance. It is popularly known as the "purple loco," or the "woolly loco,"—sometimes as "the loco," or "the real thing."

The other plant commonly known as loco is *Aragallus lamberti*. This ranges from the northern Canadian provinces into Mexico, and while its proper home is the semi-arid plains east of the Rocky Mountains, it is found as far east as Minnesota and extends well into the mountain regions of the West. In places it covers the country with the luxuriance of a cultivated crop, being very



DISTRIBUTION OF "PURPLE LOCO" (*ASTRAGALUS MOLLISSIMUS*) IN THE UNITED STATES.



DISTRIBUTION OF "WHITE LOCO" (*ARAGALLUS LAMBERTI*) IN THE UNITED STATES.

much more abundant than the purple loco. It is easily distinguished from the purple loco by its general habit of erectness and its elongated leaflets, which are less hairy than those of the purple loco. Its flowers are more



"WHITE LOCO," OR "RATTLE WEED," IN FRUIT.

conspicuous and are on the plains commonly white, while in the more elevated regions they are violet or purple. This *Aragallus lamberti* is commonly called on the plains the "white loco" or the "rattle weed." The latter name is given because after the seeds are formed and dried they rattle as the passer-

by hits them with a very good imitation of a rattle-snake. While there has been a general agreement among stockmen that the purple loco is poisonous, most have considered the rattle weed as harmless.

EXPERIMENTS IN FEED- ING.

It was evident that the first thing to do in the field experiment was to prove whether the loco weeds did or did not produce the disease. That there was some disease

causing loss there was no question. The pictures show some of the animals at different stages of the investigation. Horses and cattle were furnished by the Colorado Experiment Station, which co-operated in the work, and at a later stage in the investigation another co-operative experiment with the Nebraska Experiment Station was carried on in western Nebraska. Two similar pieces of land were selected; one was freed of the loco and in the other the loco, which was there in an abundant crop, was left standing. The stock was divided and part pastured on the loco pasture and part on the loco-free pasture. Other animals were fed in the corrals purple and white loco which were cut for the purpose.



FLOWER OF THE
"WHITE LOCO."

The results of these experiments proved very interesting. The animals in the loco pasture ate freely of the weed, their coats became smoother, and they gained rapidly in flesh. Everything pointed toward the probability of the non-poisonous character of the plant. This opinion was strengthened by the failure to find, in the Washington laboratory, any evidence of poison.

After some weeks of feeding, however, it was noticed, somewhat suddenly, that one or two of the cattle stumbled as they walked.



A "LOCOED" HEIFER, BEFORE AND AFTER TREATMENT.

(This heifer, No. 547, was badly locoed in the spring of 1907, so that it was absolutely worthless as a farm animal.)

(The same heifer, No. 547, after a course of treatment, during which its recovery was so complete that it was later sold for fat beef.)

A series of symptoms followed rapidly upon those first noticed, and in a short time our animals began to die. Before the end of the season nearly all the animals to which had been fed any considerable amount of loco were dead, while those that were kept in the loco-free pasture remained perfectly well. The first season's work proved conclusively that the stockmen were right in ascribing poisonous properties to the loco plants. Loco would kill, and the manner of death showed those symptoms which the stockmen claimed to be characteristic of locoed animals. Further work in the Washington laboratories was confirmatory of the field work, and the demonstration was complete of the poisonous character of the loco weeds.

In the second season of field work the results of the first season were confirmed, a careful diagnosis of the disease was made, and a beginning was made in attempting remedial measures. It was found that the chief trouble lay in the central nervous system, but that this was accompanied by diseased conditions of various organs, this diseased condition being especially marked in portions of the alimentary canal.

It was found that the purple loco was much more poisonous than the white loco, but the purple loco was eaten only by horses. Very rarely do cattle touch it, and it is by no means attractive to most horses. Cattle, sheep, and horses, on the other hand, eat very

freely of the rattle weed. They are apt to acquire the habit of eating it in the winter or spring, when the grass is dry, but the loco is green and succulent, and while some abandon it after green grass comes, many keep up the habit, with frequently fatal results. On the whole, the rattle weed does vastly more damage than the purple loco.

THE SEARCH FOR REMEDIES.

During the third season a serious attempt was made to apply remedies to counteract



"PURPLE LOCO" (FRUIT AND FLOWER).

the effect of the loco poison. It was difficult to devise remedies, inasmuch as the laboratory investigation, up to that time, had failed to indicate what the poisonous principle was.

Consequently remedial measures had to be directed to symptoms.

A large number of remedies were tried, and most were found wanting. It was, of course, desirable that some remedy should be found which was easily obtained and easily administered by any cowboy.

It was finally found that most horses could be restored to usefulness by the use of Fowler's solution accompanied by some laxatives, and, of course, careful feeding. Most cattle can be cured by a similar use of laxatives and good feeding, accompanied by subcutaneous doses of strychnine. One of the accompanying pictures shows a badly locoed heifer, and the companion picture shows this same animal after a course of treatment when it was in good condition for the market. The horse, as the picture shows, was in about as bad a condition as an animal could be and yet live. The later picture shows it when discharged from the hospital. It weighed at this time more than 50 per cent. more than it did at the beginning of the treatment. The majority of the animals treated in the field hospital were discharged cured, and it was proved that it was not necessary that locoed animals should be a total loss.

THE POISONOUS ELEMENT,—BARIUM.

Meanwhile, as a result of investigations in the laboratory at Washington, not only was the fact of the poisonous character of the loco weeds confirmed by Dr. Crawford, but

he also showed that these plants contain barium in very small amounts. Since barium in sufficient quantity acts as a poison to animals, he was able to point out one of the constituents which give to loco weeds their harmful action. The absence of barium from some of the loco weeds seems in a measure to explain the lack of toxicity characterizing these weeds from certain areas.

OUTCOME OF THE EXPERIMENTAL WORK.

So far as the practical result of these investigations is concerned, it must not be supposed that these discoveries will entirely do away with loco poisoning on the plains. There will still be locoed animals, but there is no longer any mystery connected with these plants. We know what they do and how they do it. We know that the white loco is much more to be feared than the purple loco, although the latter is the more poisonous, because much more of the white loco is eaten. We know that if an animal is valuable enough to justify a certain amount of care, it can be so treated as to recover from the effects of the poison.

The work of the Bureau of Plant Industry on loco is by no means completed. In New Mexico, Arizona, and California are other loco plants of different species from those studied in Colorado, and yet producing the same effects. These plants are yet to be studied in an experimental way and means devised for lessening losses in their localities.



A "LOCOED" HORSE, BEFORE AND AFTER TREATMENT.

(This horse, No. 551, was so badly locoed when received that it could barely stand upon its feet and could only rise when assisted. It was considered as absolutely worthless and doomed to death in a very few days.)

(This picture shows No. 551 a few weeks later, after a course of treatment which resulted in the almost complete recovery from the loco disease. It weighed, when this picture was taken, 310 pounds more than when treatment commenced.)



A VIEW OF THE RECENT INDUSTRIAL EXHIBITION, CALCUTTA.

(This exhibition was organized by Indians, mainly for the purpose of showing Indian products. It was a part of the annual session of the Indian National Congress. Herein were exhibited the products of the newly installed machinery, products made by modern methods.)

INDIA IN TRANSITION.

BY SAINT NIHAL SINGH.

[The writer of this article is an East-Indian traveler, lecturer, and journalist, now in this country, who has an intimate knowledge of political, social, and economic conditions in his native country, as well as, indeed, throughout the rest of the Orient. Mr. Singh, besides being a regular correspondent for most of the publications of India, is a frequent contributor to Asiatic, European, and American periodicals.—THE EDITOR.]

IN consonance with Lord Morley's reform scheme, to which King Edward gave his assent on May 26th, the first great step is now being taken in India to remove the stigma of being governed in this day and age by an autocracy,—an admittedly humane autocracy, but yet an autocracy.

Terrorism is an exotic institution in India,—of yesterday's growth; and it is destined to die a natural and speedy death. Britain has shown remarkable wisdom in graciously acknowledging at this moment, when the East-Indian anarchists are on trial in Hindustan, that India has notably politically progressed during the last few decades. Thereby the ground has been cut off from under the feet of such East Indians who might have joined the ranks of the Nihilists.

Terrorism in India is nothing but the frenzied expression of fruitless political agitation of such Indians who had lost faith in ever obtaining important political concessions from England. Lord Morley, the present Secretary of State for India, in co-operation with Lord Minto, the present Viceroy of India, has proved instrumental in amending the constitution of Hindustan in a manner

that is calculated to remove all reasonable grounds that might have otherwise found expression in Nihilism.

Heretofore, politically speaking, the 300,000,000 of East Indians were practically voiceless. In the raising or spending of their revenues, in the making or administering of their laws, the "brown men" had little or no say. Lord Morley's reform scheme has considerably changed all this. Hereafter the native of Hindustan is to be associated in an important capacity with the Englishman in both the legislative and administrative departments of the government.

The importance of Lord Morley's reform scheme lies chiefly in the fact that: "It is not primarily with a view to improvement in administration that this measure is put forward and supported. It is chiefly desirable as an instrument of political and popular education." The quoted words themselves Lord Morley borrows from Lord Ripon, who used them in 1882 in his dispatch to the then Secretary of State for India. Lord Ripon wrote the dispatch in question to initiate a representative administration in Hindustan. On account of the English prejudice in this

Lord Ripon did not succeed as well as he otherwise would have. It has been left to Lords Morley and Minto to take in hand the proposals set forth by Lord Ripon and to breathe life into what so far remained a mere skeleton. In accordance with the recommendations of Lord Ripon, East Indians were given seats in both the provincial and supreme legislative councils, and also were taken on the city corporations. But the municipalities remained, in reality, departments of state, and the native legislative members have been never given any other right than to read their learned papers. To all intents and purposes the East-Indian element, in the various committees and councils, has had little or no influence. Lord Morley's reform scheme gives effective, though necessarily limited voice, to the natives of Hindustan.

FEATURES OF THE MORLEY SCHEME.

The striking feature of the Morley scheme is the fact that in the provincial legislative councils of India the native members are to

be in the majority. For the first time in the history of Hindustan's alliance with England the English officials will not numerically overpower the representatives of the people. Thus the native members of the various Indian provincial councils will be given the opportunity of having an effective share in the making of laws that are to govern the constituencies they represent. When this is compared to the present status of the East-Indian member of the provincial legislative council, to which allusion has already been made, the character of the change is easily grasped. In this connection it is only fair to state that the head of the province is given the power to withhold his assent to any measure enacted by the provincial legislative council, at discretion. This proviso, while it insures that no wild-cat legislation shall be inaugurated, is really not hampering, since both the East-Indian publicists and the English officials are of the opinion that the veto power will be judiciously exercised.

An essential feature of the reform measure is the expansion of the Supreme Legislative Council. Here the official majority is to be retained, but, unlike as of old, the native members are to be given powers that will enable them to keep the officials in effective check. The non-official members are given a wide range of subjects to discuss in the council and, while they have not been given the right to "divide," they have been permitted to move "resolutions" wherein they can recommend the removal of an undesirable law from the statute book or the enactment of an advisable legal measure.

The scheme grants also the first important concession to the natives of India toward the control of their governmental finances. In this instance, however, the control is not effective or virtual. The concession does not go that far. It permits the members merely the discussion of financial statements and the right to make recommendations to the government, "who, while inviting the free expression of opinion in the form of resolutions, do not thereby forego any part of the power and responsibility which has been, and must continue to be, in their hands."

The natives of Hindustan who are to discuss the financial statements of the government and aid the supreme legislative councils in the making and unmaking of laws, as also the East Indians who will form the majority in the provincial legislative councils, the reform scheme provides, are to be elected by popular vote. In order to safeguard the



INDIA'S CITIZENS OF TO-MORROW.



A GROUP OF HINDU STUDENTS IN THE UNITED STATES.

(These young men are engaged in the study of medicine, agriculture, engineering, and other professions.)

interests of the minorities,—especially of the minorities backward in modern education, and also with a view to adopting the distinctly Occidental institution of government by popular vote to the special conditions existent in Hindustan,—elaborate regulations have been formulated. The details of these rules are more or less interesting, but space precludes their discussion here. It may be noted, however, that the scheme has for its primary object, as an essential provision, the development of the municipal or local government, giving the natives of India potential control of rural and civic affairs.

FAR-REACHING EFFECTS OF THE MEASURE.

The feature of the scheme that more than any other gladdens the heart of India is that permitting the four largest provinces of India each to have one native in the provincial executive council. This taking of the East Indians into the innermost governmental sanctums is an extraordinary departure, so far as India is concerned. On the one hand, it shows that the powers that administer India

are convinced of the loyalty to Britain of eminent East Indians. On the other hand, once for all it settles the debatable point as to whether or not the native of Hindustan has executive ability. Viewed from any standpoint whatever, this feature of the reform scheme fundamentally changes the very fabric of the Indian governmental constitution, especially when it is considered that at the instance of Lord Morley two East Indians recently were taken in as full-fledged members of the Secretary of State for India's Council, and also that a native Indian barrister has been taken into the Supreme Executive Council of India.

The psychological effect of the reforms initiated by Lord Morley may be stated as giving a new impetus to East-Indian aspirations for autonomous government; infusing a new faith in the native in his own ability for self-government and also in the desire of Great Britain to gradually permit the Indian to come into his own.

Of course, the leaders of East-Indian opinion do not feel that they have obtained (to



BAL GANGADHAR TILAK.

(The leader of the so-called Extremist party in India, who was recently exiled for six years for advocating the assassination of the English by means of the bomb and rifle.)

LAJPAT RAI.

(The lawyer-leader of the Sikh province,—the Punjab. Deported without trial and without charge. Released after several months' incarceration without any explanation.)

DADABHAI NAROJI.

(Called "The Grand Old Man of India." Represented an English constituency in the British House of Commons. At the head of the agitation for colonial autonomy for India.)

use a phrase of the times) "all that is coming to them"; but all of them, of every shade of opinion, declare that an important installment of self-government has been given to India. Dr. Rash Behary Ghose, M.A., D.L., C.I.E., who is to-day a towering personality in India,—an eminent lawyer, a member of the Supreme Legislative Council, and a trusted leader of the political party known as the Moderate School, which has on its lists probably 90 per cent. of the East-Indian politicians,—recently said, as the president of the Indian National Congress:

An important chapter has been opened in the history of the relations between Great Britain and India. A great step forward has thus been taken in the grant of representative government for which the Congress has been crying for years.

The Hon. G. K. Gokhale, B.A., C.I.E., who is another of India's trusted leaders and who is mentioned as likely to be selected as a member of the Executive Council of the Bombay Presidency, declared:

I will say in a general way that I am pleased,—greatly pleased,—with the reforms announced. I think the reforms constitute a real beginning of what may be called Provincial self-government. It should be borne in mind that the scheme is capable of expansion.

The events and conditions that have led up to the adoption of the Morley scheme are manifold and complex. Lords Morley and Minto give it as their opinion that the reforms have been initiated by the government. They emphatically deny that the British administration of India has been clubbed into making these concessions by the appearance of the bomb-thrower on the East-Indian political horizon. The general awakening all over Asia, especially in India, has led the government to take the notable action, and the administration desires thanks from the world at large as taking the lead rather than merely yielding under pressure.

The native leaders tell a different tale. In the reform scheme they see their vision of autonomous India under the ægis of the British partially come true; and they declare that the world owes thanks to them for the conception of the ideal and for ceaselessly working for its realization. Of course, they do not hesitate to admit that it is the impact of the Occident upon Hindustan that is primarily responsible. The country owes thanks to the English for rousing it from the sleep of fatalism. But the East-Indian political agitator claims that it is his agitation, rightly directed and ceaselessly carried on, that has



RASH BEHARY GHOSE, D.L., C.I.E.

(An eminent lawyer-leader of India. He was the president of the last Indian National Congress. He is a member of the legislative council at Calcutta.)

HON. G. K. GOKHALE, B.A., C.I.E.

(Member of the Supreme Legislative Council of India. Credited with having influenced Lord Morley in drafting the reform scheme.)

BEPIN CHANDRA PAL.

(Greatest stump orator of India; recently imprisoned for refusing to give evidence in a sedition case in which the *Bande Mataram* was indicted.)

awakened the British bureaucracy to do its duty by the people of Hindustan. Probably the glory for the reform measures must be evenly divided between the East Indians, who for over a generation have been persistently and intelligently working for these reforms, and the government, which has been educating India to a sense of its responsibility.

WHAT INDIA STILL DEMANDS.

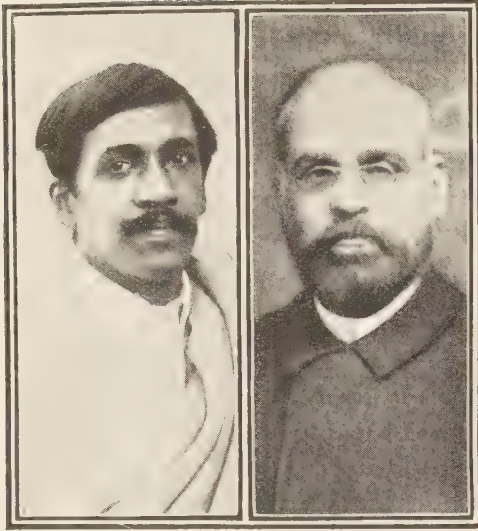
Not all political agitation, however, is due to the East Indian's desires that have been partially satisfied by the reform scheme. Some of the "unrest" about which the Western world has been hearing for years is attributable to repressive measures taken by the Indian administration during the past two or three years. Many East Indians have been deprived of their liberty without charge or trial. Such an action, the public in India as well as England feels, is out of date in the twentieth century. The province of Bengal has been divided in opposition to public opinion, and this is a thorn in the side of native Indians. Lord Morley himself has acknowledged this measure to be a blunder. During the last few years a great many Indian newspaper men and speakers have been prosecuted and punished by the government. The administration finds

justification for these stringent methods in the plea that peace has to be maintained. The repeal of the law partitioning Bengal and the grant of amnesty to the political prisoners is prescribed by the Indian publicists as an effective cure for the unrest arising from these causes, and, from the present temper of the Liberal government of India, such a course of action is considered to be by no means impossible or remote.

The transition of India from despotic rule to a progressively representative government marks an epoch in the annals of the land, pointing luminously to the fact that a noteworthy, though silent and bloodless, revolution has taken place in the motherland. This remarkable change in East-Indian society has not been wrought in a moment by a conjurer's trick. While the world sees its culmination, not the final, but only a partial culmination of it, the transformation has been going on in the country ever since the first shipload of Occidentals entered the land and introduced Western culture to rouse and remodel the dormant civilization of India.

THE NEW INDUSTRIAL INDIA.

Under the impetus of the spirit of our times a complete social, industrial, and economic transformation is now going on rapidly



BABU ARABINDA
GHOSE.

SHYAMAJI KRISH-
NAVARMA.

(A graduate of Oxford University and an eminent classical scholar. He was recently honorably acquitted, after a long trial, on the charge of introducing terrorism into India.)

(A graduate of Oxford who contributes trenchant articles on Indian politics to the London periodicals, advocating any means, however violent, of ridding India of her English oppressors.)

in Hindustan. The East-Indian is losing his age-long obsession for sticking to the old, traditional methods of life and work and is becoming gradually modernized. The backbone of the prejudicial institution of caste, which held India down for centuries, has been shattered. The younger generation is more or less saturated with democratic ideals.

From her rôle of half-toy, half-slave to man, penned up in the seclusion of the *zenana* (woman's apartments), the woman of Hindustan is rising to equality with man. India is daily getting anxious to accord its women a humane and a just treatment. Sex-inequality had decreed that while the widower was allowed to marry, even permitted to indulge in polygamy, the widow was forced to remain a widow. This injunction is no longer being faithfully obeyed. Widows of the highest castes are being allowed to marry. Moreover, Hindus are making special efforts to establish homes where young and old widows are kindly treated and taught

how to be nurses, doctors, teachers, and missionaries. The aim of these institutions is to inspire the widows to help toward the uplift of East-Indian society and also to make them capable of supporting themselves instead of being charges on their relatives, as has been the case heretofore. Polygamy was never very common in India, but to-day it is doomed. To-day the woman of India is leaving the privacy of her apartments, going to modern schools for education, and entering the arena of public activity, to help along the evolu'tion of Hindustan. Schools and colleges, especially designed for girls and neighborhood centers meant for the advancement of matured women, are coming to be pronounced features of East-Indian cities.

The forces that are advancing East-Indian society are most actively at work in the cities; but the provinces are also being influenced to change the old for the new. While in the East-Indian metropolis mills and factories run by steam or electricity are rising to engage in the manufacture of the commodities needed by India, agriculture is being improved in the rural districts. Hitherto 90 per cent. of the 300,000,000 East Indians have been engaged in agriculture, practiced with old-fashioned, cumbersome machinery and methods or in decadent farm industries. To-day, on the one hand, agricultural methods and implements are being improved and, on the other, the undue pressure on agriculture is being removed by more East Indians engaging in manufacture. Already India has commenced to challenge the right of Japan and Occidental countries to supply the Oriental market with cotton yarn.

During the last two centuries the East Indian has concerned himself with being a mere producer of raw materials. To-day he is anxious to engage in manufacturing. Indeed, he has already made a remarkable start in this direction. The "Swadeshi" movement (which means "My country's goods for me") has given a wonderful impetus to industrialism, and has resulted in the formation of banks, insurance companies, and other commercial associations, as well as proving instrumental in building mills and factories worked by modern motive power and conducted on up-to-date plans, the most noteworthy feature being that they are financed, managed, and manned by native Indians.

MR. LLOYD-GEORGE AND THE BRITISH BUDGET.

BY W. T. STEAD.

"THIS is not a budget," said Lord Rosebery, "it is a revolution." Lord Rosebery's dictum has been criticised as extravagant. I do not think Lloyd-George would join in that criticism. He framed his budget with the deliberate intent that it should not merely fill the exchequer for the current twelve months, but that it should fundamentally modify the social and political conditions of life in Great Britain.

On reading the speech in which he introduced the budget I was forcibly reminded of a conversation I had with Mr. Lloyd-George immediately after he quitted the Board of Trade and took office as Chancellor of the Exchequer. I had been deploring the practical dictatorship, usurped by the House of Lords in all matters of legislation, ever since the Liberal government flinched from accepting the challenge flung down to them by the Peers by the mutilation of the Education bill of 1906.

"Yes," said Mr. Lloyd-George meditatively, "I was alone in the cabinet in urging the necessity for a dissolution. When I was overruled I realized at once that for the rest of this Parliament we could only legislate by leave of the Peers. There was only one department in which they were powerless,—the financial. And that is why," he said, "I have come to the Treasury. It is only here where the House of Commons is free to do anything. I hope to do something."

He has done, or rather is trying to do, something with a vengeance. It is in his budget he has produced a vast, far-reaching bill for the reform of the land laws and the liquor laws containing proposals which incidentally repeals eight acts of Parliament and amends twenty-eight others. One of its critics bitterly remarked: "It introduces numerous revolutionary changes which have not been adequately deliberated on or discussed. It is more like a political program, to be given effect to in a long series of years, than a finance bill to provide the current expenditure of one." Another remarkable feature of this budget is the way in which Mr. Lloyd-George, not content with providing for

the needs of the twelve-month, provides for the distant future. "One of the taxes it enacts is not to be levied till 1924, and after that only every fifteen years, 1939-1954, *ad infinitum*. Another tax enacted is only to be levied every five years." Nor is this all. The budget is formed so as to produce much more money "ultimately" than is needed this year.

The new death duties will yield £2,800,000 (\$14,000,000) in 1909-10. Ultimately they are calculated to produce £7,425,000 (\$37,125,000). The increase to the income tax will produce £3,500,000 (\$17,500,000) this year, but hereafter £6,720,000 (\$33,600,000). Under these two heads alone Mr. Lloyd-George seized the opportunity created by the necessity of raising £6,300,000 in order to secure the Treasury in subsequent years the increased revenue of £14,145,000. As the whole of this sum is taken from the well-to-do, and as at least £10,000,000 a year will be spent in paying old-age pensions to the poor, it is easy to understand the justification of Lord Rosebery's alarm. "It is not a budget. It is a revolution." For it marks the beginning of that long-predicted era of democratic finance in which the multitudinous *Have-nots* will use the power of their overwhelming majority in order to compel the *Haves* to share their wealth with their poorer neighbors.

MR. CARNEGIE'S IDEAL.

If Mr. Carnegie is not the original author of the budget he has certainly helped to inspire its author, and has written in support of its leading ideas. There are probably no two men in Great Britain who are so dissimilar in temperament and in position as Mr. Carnegie and Mr. Lloyd-George. It is true that they are both of about the same stature. Both are little men, but Mr. Carnegie is the Scot, blue-gray eyes, light hair, and has a great capacity for quiet monologue. Lloyd-George is a Welshman, dark of hair and keen of eye, full of fire and impulse, to all appearance a man who has none of the toughness of the "Little Boss." But the

two men are alike in believing that the burden of taxation should be laid for the most part upon the shoulders of the rich. Mr. Carnegie's recent writings on the proper method of levying taxation might have been taken as a text-book by the Chancellor of the Exchequer. To avoid the taxation of necessities of life, to raise money on luxuries and superfluities, and as a financial standby to levy a swinging death duty on great estates, all these principles laid down by Andrew Carnegie are faithfully carried out by Lloyd-George. Mr. Carnegie approves of a death duty of as much as 50 per cent. upon great fortunes. Lloyd-George has not ventured so far, but the following comparative table of the effect of the budget upon great incomes and great estates shows that he is following with rapid strides in Mr. Carnegie's wake:

to level up to the Carnegie standard in the years which are to come."

THE MAN WHO MADE THE BUDGET.

Lloyd-George, who is the author of this revolutionary budget, is the son of a Unitarian schoolmaster, who was master of Hope Street School in Liverpool, of which Dr. Martineau was the manager. Of Unitarianism, however, Lloyd-George heard little, for his father died in 1865, when Lloyd was only two years old. His mother, the daughter of a Welsh Baptist minister, took her children home to Wales, where they were brought up under the eye and with the financial assurance of her brother, who kept a shoemaker's shop in the village of Llanystumdwy, in South Carnarvon.

The shop was the hub of the village, the place where all the village folk met to dis-

INCOME TAX AND DEATH DUTIES IN 1894 AND 1909 COMPARED.

An estate of £	Yielding at 4 per cent. an income of £	Will now pay income tax (including super-tax)			Whereas in 1894 it paid £ s. d.	And will now pay death duties £	Whereas in 1894 it paid £
		£	s.	d.			
5,001	200	*2	6	8	*1	0	200
10,001	400	*14	0	0	*9	0	500
20,001	800	46	13	4	26	13	1,000
25,001	1,000	58	6	8	33	6	1,375
50,001	2,000	116	13	4	65	13	3,000
100,001	4,000	233	6	8	133	6	7,000
125,001	5,000	291	13	4	166	13	8,750
[125,025	5,001	†341	15	0	166	14	
150,001	6,000	425	0	0	200	0	11,250
200,001	8,000	591	13	4	266	13	15,000
300,001	12,000	925	0	0	400	0	24,000
400,001	16,000	1,258	6	8	533	6	36,000
500,001	20,000	1,591	13	4	666	13	52,000
600,001	24,000	1,925	0	0	800	0	65,000
700,001	28,000	2,258	6	8	933	6	84,000
800,001	32,000	2,591	13	4	1,066	13	98,000
900,001	36,000	2,925	0	0	1,200	0	120,000
1,000,001	40,000	3,258	6	8	1,333	6	135,000
2,000,001	80,000	6,591	13	4	2,666	13	160,000
3,000,001	120,000	9,925	0	0	4,000	0	320,000
10,000,001	400,000	33,258	6	8	13,333	6	480,000
						1,600,000	900,000

* Allowing for abatements. † Note effect of super-tax beginning on incomes over £5,000.

Death duties have provided the British Treasury with an annual income of £18,200,000 for the last two years. In future they will yield £25,000,000. The capital liable to death duties in Great Britain varies from £250,000,000 to \$300,000,000 per annum. The increase of the tax is greatest on the largest fortunes. Estates of a million and upward are the most heavily mulcted. The total value of such estates falling in has varied from a minimum of £6,000,000 (\$30,000,000) in 1904 to a maximum of £38,000,000 (\$190,000,000) in 1901. Less than 10 per cent. is a long way short of Mr. Carnegie's ideal of 50 per cent., but, as Lloyd-George's Socialist supporters chuckle under their breath, "it will not be difficult

cuss the affairs of this world and the next. As might be supposed, it was a forcing-house of Radicalism. The countryside around was owned by game-preserving Tory squires, upon whose preserves poachers made incessant incursions at peril of life and liberty. Lloyd-George, unlike Shakespeare, does not appear to have been a poacher in his youth. His raids into forbidden preserves were limited to forays for nuts and wild fruit,—which tasted all the sweeter because of the menacing presence of the lurking keeper.

Life was a serious matter to young George, and he was a diligent student. Being seized with an ambition to learn French, his uncle, the Baptist shoemaker, set himself to learn the language with the aid of dictionary and



THE HON. DAVID LLOYD-GEORGE.
(Chancellor of the British Exchequer.)

grammar in order that he might help the boy to read French. Like many Welshmen, the uncle had a passion for education, and, being unmarried, he devoted all his time and his means to bringing up and educating his nephews and nieces. He did more than give them schooling. He implanted in their minds that love of reading good books which is one of the greatest blessings of life.

The book that influenced him most when in his early teens was "Sartor Resartus." The lad had, even at that early age, left his orthodox moorings and was all at sea, when, in a fortunate hour, Carlyle's spiritual epic in prose came into his hand. It was at once a revelation and an inspiration.

He passed the preliminary examination necessary before entering the legal profession when he was fourteen. At sixteen he left school and spent a year or two in reading at home, and he was then articulated as clerk to a solicitor in Portmadoc. There he remained until he was twenty-one. When he had passed his final examination and become a full-fledged lawyer his education and training had cost his uncle some £700 or £800.

In due course he began to practice as a solicitor in Portmadoc, and it was there where he had the good fortune to be the legal champion of the rioters for law and humanity at Llanfrothen. His brother had entered into partnership with him, and this left Lloyd-George free to accept the invitation to stand in the Liberal interest for the Carnarvon boroughs. His opponent was the Squire of Llanystumdwy, the village in which Lloyd-George had been brought up. There was a stiff contest, but in April, 1890, Lloyd-George entered the House of Commons, winning the seat from the Tories by a majority of only eighteen. He soon made his mark as a ready speaker, a keen debater, and a man who had a future. The South African war brought him prominently to the front. He was the only Liberal member who dared to stand up to Mr. Chamberlain. Party passion raged very high at that time, and Lloyd-George was made the victim of personal violence. One infuriated "patriot," meeting him in the streets of Bangor, felled him to the ground by a blow on the head. The bludgeon was heavy and the pro-Boer was knocked senseless. It was a foul blow, but like everything else that is done to injure Lloyd-George, it redounds to his advantage. A year or two later a determined attempt was made to kill him in Birmingham.

After the Boer War the Education act of 1902 gave him his first chance. He organized the revolt of Nonconformist Wales against the law which favored the ascendancy of the Anglican Church. Wales became a unit under his inspiring leadership, and when the Unionist government fell Campbell-Bannerman at once turned to Lloyd-George and offered him the presidency of the Board of Trade. This post he held with distinguished success for a couple of years. At first he was regarded as the one failure of the cabinet. This impression lasted only three or four months. He then buckled to his work and very soon everybody began to discover that Lloyd-George was a man of extraordinary ability. He was so conciliatory, so persuasive, so full of consideration of everybody that the Tories, who at first regarded him as an incarnation of the Evil One, were won over so thoroughly that they began publicly to pay him the supreme tribute (in their own eyes) of regarding him as a Conservative in disguise. He was to be Mr. Chamberlain *secundus*, and so forth. This pleasing delusion lasted until he became Chancellor of the Exchequer. If he is Mr. Chamberlain *secundus* it is not Mr. Chamberlain after the secession, but the Chamberlain of the Radical program who preached the doctrine of Ransom and told the Nobles of England that they toiled not neither did they spin with such hearty goodwill that Lord Salisbury compared him to Jack Cade.

Lloyd-George is facile, quick, impulsive, and somewhat inclined to be what the Boers called "slim." A close observer described him years ago in words which are as true as ever to-day. He said:

Even in private intercourse one's first impression of the man immediately gives way to a feeling that there is a something about him out of the common. He speaks with a decision and a certainty that carry conviction. You feel as you talk to him that he has something to say worth listening to,—that he is not, after all, of the common ruck.

He makes no pretense at fine polish, but there is that about him which, despite his appearance and his manner, impresses you with a sense of authority and almost of dignity. He has a self-assertiveness, a self-assurance that make him stand out in any company. He could never be overlooked. You always know he is there.

In international politics he is the rising hope of the peace party. He was the first Chancellor of the Exchequer to accept the principle of appropriating decimal point one per cent. of the army and navy expenditure

for the promotion of peace and international hospitality. Together with Mr. Winston Churchill he opposed the building of eight *Drainage* this year, and has only yielded to the pressure of force majeure.

When it was evident that old age pensions and the demands of the navy would confront the Treasury with a deficit of at least £12,000,000, Lloyd-George saw his opportunity. Instead of minimizing the deficit he did his uttermost to magnify it. He underestimated his probable receipts and exaggerated his outgoings. As a result he had a gorgeous deficit to meet of £15,762,000 on an expenditure of £164,152,000, which includes the payment of £28,000,000 as interest on the national debt and sinking fund. The magnitude of the deficit afforded him an opportunity for a heroic budget. There was a fierce battle over it in the cabinet, but ultimately Lloyd-George was allowed to have his way.

THE BUDGET IN BRIEF.

Starting with a deficit of £15,762,000 Mr. Lloyd-George proceeded to increase it by promising to contribute £600,000 to the fund for the improvement of roads, and by voting £300,000 for schemes for labor exchanges, afforestation inquiries, and the like. As he wanted another half-million for contingencies, he made out a prospective deficit of £17,200,000, for which old age pensions were responsible for £8,000,000 and the navy for £3,000,000.

How was he to meet it? Advisers were not lacking who proposed that as he wanted about 12 per cent. more revenue he should simply add 12 per cent. to all existing taxes. Others suggested that he should restore the sugar duties to their previous figure, which would have brought in £3,000,000, have taken £5,000,000 off the sinking fund, and borrowed the rest. The tariff reformers suggested a 10 per cent. import duty on manufactured goods, but as this would not choke the deficit they have hardly ventured to speak about their pet nostrum. The collapse of the tariff reformers has been one of the most conspicuous features of this remarkable budget debate.

Left to his own mother wit to devise expedients for raising the necessary funds, Lloyd-George began by reducing the sinking fund by £3,000,000 a year. This still leaves nearly seven millions available for paying off the debt over and above the interest of £18,000,000 on a national debt of £696,000,000.

He then balanced his account by imposing new or increased taxes as follows:

New or increased taxes.	Expected additional yield.	
	This year.	Next year.
On motor cars and motor cycles	£260,000	†£260,000
On petrol	340,000	375,000
On incomes (including super-tax)	3,500,000	6,300,000
Death duties, estate duty, legacy, and succession duties	2,850,000	6,320,000
Stamp duties	650,000	1,450,000
Liquor licenses	2,600,000	†2,600,000
Land values, reversions of leases, and mining royalties	500,000	†500,000
Spirit duty	1,600,000	†1,600,000
Tobacco duty	1,900,000	2,250,000
	£14,200,000	£21,655,000

That is the budget reduced to its simplest elements. It was received with great enthusiasm by the party, especially by the Labor members. The Irish Nationalists resented the increase in the duty on whiskey, but when the Finance bill came on for second reading the division showed a majority for the government of 157. The normal majority of the government over the Unionists and Nationalists is 170. There was no cross voting on the division.

THE OPPOSITION TO THE BUDGET.

As might have been expected, the opposition to the budget was very strong, especially among the wealthy classes. As M. Anatole France put it in his mordant satire of the Isle of the Penguins, the rich always consider it expedient that new taxes should be laid upon the backs of the poor. Every one of the rich city men and wealthy landlords who had been protesting their determination to spend their last shilling in the defense of the Empire began with one consent to declare that the shilling must come from somebody else's pocket than their own. No one denies that the money must be raised. The only question is whether it must be raised in taxes on wealth, on tobacco, on alcohol, or whether it must be charged upon the daily bread of the poor. Free-traders naturally recoiled from any taxes which laid a burden on the consumer far greater than the revenue which they yield to the exchequer. There are objections to all kinds of taxes. The only question is which tax will yield most revenue and do least mischief. At present Lloyd-George's budget holds the field.

THE NEW LAND TAXES.

The House of Commons on June 30 had only succeeded in disposing of the first clause of a Finance bill which contains seventy-eight clauses. Five and a half sittings were

devoted to that first clause, which at last was only thrust through by the use of the closure.

The chief features of the land proposals are these:

Increment duty of 20 per cent. on increase of value on land. Estimated yield, £50,000.

Reversion duty of 10 per cent. on benefit accruing from terminations of lease. Estimated yield, £100,000.

Duty of $\frac{1}{2}$ d. in the £ on capital value of undeveloped land and ungotten minerals. Estimated yield, £350,000.

The case in favor of giving the community a share in the unearned increment of land was first advocated by John Stuart Mill and first acted upon by the city of Frankfort.

When the market value of land increases without effort or expenditure on the part of the owner, the budget declares that he must compensate in some measure the society whose progress has brought him gain. One-half of the receipts of the tax go to the locality and one-half to the imperial Treasury. The bill is not to disturb the existing contracts, and the increment value is defined as "the amount (if any) by which the site value of the land on the occasion on which increment value duty becomes due exceeds the original site value." The site value does not include any part of the value attributable to the value of buildings or structures, goodwill, or any other matter personal to the occupier or owner. This will necessitate returns from every owner of land of the total value and the site value of his land, and from this return all increment in the future will be calculated.

THE NEW INCOME TAX.

Mr. Lloyd-George thus explains his proposals as to the increase in the income tax:

I proposed that the rates upon earned income in the case of persons whose total income does not exceed £3000 should remain as at present,—namely, 9d. in the pound up to £2000 and 1s. in the pound between £2000 and £3000. In respect of all other incomes now liable to the 1s. rate I propose to raise the rate from 1s. to 1s. 2d.

In addition to this he proposes to levy a super-tax of sixpence in the pound:

I propose to limit the tax to incomes exceeding £5000, and to levy it upon the amount by which such incomes exceed £3000, and at the rate of 6d. in the pound upon the amount of such excess. An income of £5001 will thus pay in super-tax 6d. in the pound on £2001, the equivalent of an addition to the existing income tax on the whole income of rather less than $2\frac{1}{2}$ d. in the pound, and an income of £6000 the equivalent of an additional 3d. The equivalent of an extra 4d. on the whole income (or a total income tax

of 1s. 6d. in the pound) will only be reached when the total income amounts to £9000, and the equivalent of an extra 5d. only when the total income amounts to £18,000. Assessments to the new tax will be based upon the returns of total income from all sources which will be required from persons assessable.

The amount of income liable to super-tax would be 90 millions.

THE NEW DEATH DUTIES.

When he came to deal with the death duties Lloyd-George said:

The estate duties upon small estates, of which the net principal value does not exceed £5000, will remain at 1, 2, or 3 per cent., according to value, as at present; but between £5000 and £1,000,000 I propose to shorten the steps and steepen the graduation. I do not propose to increase the maximum of 15 per cent., but I propose that it should be reached at £1,000,000, instead of £3,000,000. Under the new scale estates from £5000 to £10,000 will pay 4 per cent., and those from £10,000 to £25,000, 5 per cent. The next step will be £20,000 to £40,000, and the rate 6 per cent.; the next, £40,000 to £70,000, with 7 per cent.; while estates of £70,000 to £100,000 will pay 8 per cent.; from £100,000 to £150,000, 9 per cent.; from £150,000 to £200,000, 10 per cent.; from £200,000 to £400,000, 11 per cent.; from £400,000 to £600,000, 12 per cent.; from £600,000 to £800,000, 13 per cent.; from £800,000 to £1,000,000, 14 per cent.; and above £1,000,000, 15 per cent. upon the whole of the estate.

The net effect of all this taxation will be to compel owners of great estates to break up their holdings.

THE NEW TAXES ON THE CONSUMER.

The only new taxes on the consumer are those which are imposed on tobacco and spirits. He claps eightpence a pound on tobacco, which works out at an extra halfpenny an ounce for the smoker. The duty on spirits is raised from 11s. per gallon to 14s. 9d. A halfpenny a glass on whiskey more than covers that. The imposition of higher license duties to the tune of two millions a year is more than set off by an increase of a halfpenny per glass in the price of beer.

The tax on petrol is devoted to the maintenance of the roads used by motors. The tax on stamp transfers is bad on principle, but lucrative in practice.

On the whole, Lloyd-George has faced a very difficult problem with courage and resource. He has a long battle before him. The coalesced forces of great wealth are strongly entrenched. But the exclusive control of finance by the Commons bars out the medley of the House of Lords and in the House of Commons Lloyd-George commands a majority of nearly two to one.

THE SERIOUS CONDITION OF GER-MANY'S FINANCES.

BY FREDERIC AUSTIN OGG.

A CONSOLIDATED imperial debt of 4,233,500,000 marks* (more than one billion of dollars), involving an annual interest charge of 147,700,000 marks; a deficit of 184,800,000 marks in a twelve-month of profound peace, with the certain prospect of a shortage yet larger in the year to come; the floating of a loan of 320,000,000 marks, in part at the remarkable rate of 4 per cent.; a summary call from the government for increased taxation to produce an additional revenue of 500,000,000 marks per year,—these are some of the big facts in the present-day financial situation of the most militant and the most progressive nation of Europe. They are not accidents. They are not the fruits of wastefulness or corruption. They are merely the inevitable concomitants of an attempt to launch, in an era of unparalleled international prodigality, a new and preponderating world-power.

The external aspects of the thirty-eight years of daring enterprise that has brought the German Empire to the dubious pass in which it to-day finds itself are familiar enough to everybody. In 1871 the Empire possessed no navy worthy of the name; to-day the Kaiser's fleet ranks second among the admiralities of Europe, and every move at aggrandizement is watched apprehensively by the premier naval power of the world. In 1871 Germany boasted not one square mile of outlying territory; to-day she is the mistress of a colonial empire comprising an estimated extent of 1,027,820 square miles (two-thirds the area of China) and a population of above twelve millions. The Empire maintains an army which is universally recognized as the world's most splendid fighting machine. It has built up an elaborate and costly system whereby it insures its citizens against sickness, accident, unemployment, old age, and invalidity. It carries a formidable civil and military pension roll. And it has developed one of the most highly specialized corps of civil-service officials in the world.

The departure from the comparative frugality of the early days came about 1885, when Germany for the first time went over definitely to a policy of colonial and naval aggrandizement. By 1888 the yearly expenditure had risen to 740,000,000 marks; by 1898, to 1,380,000,000. In the decade 1899-1908 it rose to 2,432,000,000. And the budget for the current year contemplated originally an outlay of 2,865,400,000 marks. During the twenty years from 1888 to 1908, while the population of the Empire was increasing by 30 per cent., the imperial budget was augmented by 230 per cent. Part of this vast increase has been occasioned, of course, by the extension of the civil service and other inevitable demands of the sort, but a very large share of it has been in behalf of the army, the navy, and the colonies.

THE BUDGET TRIPLED IN TWENTY YEARS.

The navy, which in 1888 cost 53,000,000 marks, in 1890 cost 130,000,000; in 1900, somewhat under 200,000,000; in 1908, 330,000,000; the budget for 1909 stipulates 411,400,000; and from now until 1917, under current estimates, the establishment will involve an annual outlay of more than 400,000,000 marks. The colonies, which twenty-five years ago did not appear in the budget at all, cost, in 1898, 12,000,000 marks; in 1902-1907, an average of 50,000,000; and in 1908, 65,000,000. And yet for every mark expended on the navy almost four are expended upon the army, and seventeen or eighteen for every one expended on the colonies. In 1886-1890 the annual outlay for the military establishment was 376,000,000 marks; between 1904 and 1908 it rose from 647,400,000 to 854,300,000.

There has been likewise a heavy increase in accessory expenditures, as, for example, the outlay for military and naval pensions, which in 1888 was 25,600,000 marks, but in 1908 had risen to 115,100,000. Since 1898 Germany has increased her expenditure on her army and navy together 25 per cent. more than has Great Britain. The total annual cost of her land and sea defense is now

* The German mark is equivalent to about 24 cents in United States currency.

977,400,000 marks, without taking account of the 600,000 to 700,000 able-bodied men who are kept from profitable employment, representing in productive capacity as much as 1,500,000,000 marks per year. Such has come to be the scale on which the Empire carries out its constitutional obligation to the German people to assure them a fair measure of security *nach aussen*.

LIMITATIONS OF THE FEDERAL SYSTEM.

For the meeting of these soaring expenditures the means at the disposal of the imperial government have proved increasingly inadequate. The initial difficulty may be said to lie in the federal character of the Empire itself and in the fiscal system established by the imperial constitution. The idea which dominated the founders in 1871 was that the function of the Empire was to be primarily that of defense rather than that of administration, and that the largest possible measure of financial independence should be left to the federated states; from which it followed that the revenues and resources of the imperial government were to be maintained on a comparatively modest scale. Articles 35 and 49 of the constitution gave over to the Empire simply the funds accruing from import duties, taxes on the consumption of salt, tobacco, brandy, beer, and sugar, and receipts from posts and telegraphs, and in Article 70 it was stipulated that when the income from these sources should prove inadequate the deficiency should be made up by *matrikularbeiträge*, or assessments upon the federated states, levied in proportion to population.

It did not require many years to demonstrate the insufficiency of this system. As the stability of the new order became assured the field of imperial operations tended inevitably to expand, with the result that the revenue of something like 350,000,000 marks which had been quite satisfactory in 1871 soon needed to be greatly increased. Even the milliards derived from the French indemnity did not avert the early necessity for a larger income, and in 1876 the government began to borrow. The borrowings at first were small and they were applied to railroad expansion and other productive ends, but subsequently, especially during the years 1887-1894, the government fell into the habit of negotiating heavy loans without adhering to any established rule, and of using the easily acquired funds for expenditures which should have been provided for out of

the regular revenues, a habit which is causing much of the present financial troubles.

GERMANY BECOMES A PROTECTIONIST NATION.

In 1879, moved in part by a desire to give the Empire a larger measure of financial independence, Bismarck proposed and secured the enactment of the great tariff measure which swung Germany over almost at a stroke to the present régime of protectionism. Bismarck's idea was to relieve the government of its dependence upon the states for the yearly matriculars by providing it with a more abundant revenue of its own; but the so-called Franckenstein clause of the tariff act in a measure defeated this purpose by stipulating that the Empire should each year distribute among the states any amount in excess of 130,000,000 marks accruing from the new tariff rates and from the increased excise on tobacco which was at the same time provided for.

This arrangement introduced into German finance a new element of complication, for thereafter it became necessary not merely for the states to pay over to the Empire the matricular contributions which from time to time were levied upon them, but also for the Empire to pay over to the states the *ueberweisungen*, or excess-money, arising from customs and the tobacco impost, though in practice the method early became that of simply striking a balance between the two sets of obligations. In 1879 the *ueberweisungen* amounted to 8,022,056 marks and the matriculars to 72,076,560. By 1902 the figures had become 556,235,000 and 580,639,792, respectively.

From 1879 until the present the principal reliance of the Empire has been the customs duties, the yield of which in 1882 was 191,500,000 marks; in 1892, 360,000,000; in 1902, 477,600,000; and in 1906, 577,000,000. Next in importance are the excises, or the five great "consumption taxes" on salt, tobacco, sugar, beer, and spirits. They yielded, in 1872, 67,000,000 marks; in 1882, 150,300,000; in 1892, 260,000,000; in 1902, 312,000,000; and in 1906, 378,200,000. Then follow the imperial stamp tax on playing-cards and on various instruments or documents, yielding, in 1908, somewhat over 123,000,000 marks; an inheritance tax, yielding 41,000,000; and a variety of remunerative undertakings, as railroads, posts and telegraphs, mints, and imperial printing works, yielding 113,000,000 marks. Beyond these,

the only important resource is the matricular contributions by the individual states.

DEBTS OF EMPIRE, STATES, AND CITIES.

An inevitable result of the growing disparity between expenditures and receipts has been the plunging of the nation into embarrassing indebtedness. As late as 1885, on the eve of the naval and colonial era, the imperial debt was only 410,000,000 marks, but by 1891 it had risen to 1,317,800,000; by 1901, to 2,395,700,000; and by December 1, 1908, to 4,233,500,000. Besides the imperial debt there are the debts of the states, which in 1908 amounted to 14,362,400,000 marks, and those of the municipalities, which at the same date stood at 5,295,700,000 marks. Between 1901 and 1906 the debt of Prussia increased by 11.7 per cent.; that of Saxony by 13.4; that of Bavaria by 25.2; that of Baden by 33.8. The aggregate of imperial, state, and municipal indebtedness has risen during the past twenty-seven years by the sum of 13,300,000,000 marks.

On the whole, the state and municipal debts afford small ground for concern, since they represent almost exclusively the placement of capital in railroads, mines, forests, industrial establishments, and other more or less productive enterprises. Something like half of the indebtedness of the Empire is similarly placed, but the other half is utterly unproductive and the disquieting feature of the situation is that the unproductive expenditures of the Kaiser's government are tending more and more to be covered, not by current receipts, but by loans.

THE LAST GERMAN-PRUSSIAN LOAN.

The character of these loans, and the circumstances under which they are floated, have been brought afresh to the attention of the financial world by the flotation which the Empire and the kingdom of Prussia jointly negotiated during the past spring. Prussia is no less frequently in need of additional funds than is the Empire, and the custom has regularly been to float a Prussian and an imperial loan by the same operation. In his report to the Diet early in January the Prussian Finance Minister, Baron von Rheinbaben, showed that the year 1907 closed with a deficit of 71,800,000 marks, that 1908 would exhibit a shortage of at least 165,000,000, and that the estimates for 1909 contemplated another deficiency of 156,000,000, on account, principally, of necessary increases in official salaries, the ma-

tricular demands of the Empire, and a falling-off in the customs and in the imperial railway receipts.

To meet these amounts, and to enable the state to prosecute its varied economic activities, it was determined that a loan should be floated aggregating 480,000,000 marks. The Empire, in turn, fixed the amount that it must have, in advance of any possible returns from new taxation, at 320,000,000 marks. Arrangements were accordingly effected for a loan of 800,000,000 marks. According to invariable practice, the loan was floated through the intermediary of a *kon-sortium* of banks and firms in the leading cities of the Empire, comprising, in this instance, the Deutsche Bank, the Disconto-Gesellschaft, the Dresdner Bank, the Berliner Handels-Gesellschaft, and nine other Berlin houses, the Norddeutsche Bank, the Vereinsbank, and two other banks of Hamburg, two houses in Frankfort, two in Munich, and one each in Cologne, Nuremberg, Mannheim, Stuttgart, Posen, and Leipzig.

In the prolonged conferences which were held between the bankers and the representatives of the government the latter stood out for a 3½ per cent. issue, the former for a 4 per cent. It was claimed by the bankers that while the average German investor is very favorably inclined toward government securities he expects to receive more than 3½ per cent. on his money, and will withhold his savings for investment in industrial enterprises unless a rate of approximately 4 per cent. is guaranteed him. The government, on the other hand, urged the necessity of a low denomination in the interest of German credit and of the tax-payer. The outcome was a compromise whereby half of both the imperial and the Prussian loan was to be issued at 3½ per cent. and the other half at 4 per cent., both to be irredeemable until 1918. The issue took place on May 3.

THE INTEREST RATE.

It may be noted in this connection that of the 4,233,500,000 marks of imperial indebtedness, December 1, 1908, 1,783,000,000 marks bears interest at 3 per cent.; 1,860,000,000 marks, together with 20,000,000 in treasury bonds, at 3½ per cent.; and 250,000,000 marks, with 340,000,000 in treasury bonds, at 4 per cent. The mean rate upon the entire imperial debt at the date mentioned was 3.54 per cent. Future loans are likely to be predominantly in the form of 4 per cents. Of the 8,770,000,000-mark

indebtedness of Prussia at the opening of the present year, 1,616,000,000 marks was at 3 per cent.; 5,895,000,000 at $3\frac{1}{2}$ per cent.; and 610,000,000 at 4 per cent.

In January, 1908, the Prussian Government issued a 4 per cent. loan at $98\frac{1}{2}$, to be reduced to $3\frac{3}{4}$ per cent. after 1918, and to $3\frac{1}{2}$ per cent. after 1923, but it proved highly unpopular. In April the imperial and Prussian Governments issued 650,000,000 marks in 4 per cents. at 99.30. So that, although Italy, for example, even after the Sicilian disaster, could float a $3\frac{1}{2}$ per cent. loan at 102, the disordered state of German finances and the superior opportunities for industrial investment may be expected to continue to force normally a 4 per cent. rate in the Empire. The 4 per cents. of the recent loan were taken over by the bankers at 102 and issued to the public at 102.70, while the $3\frac{1}{2}$ per cents. were taken over at 94.80 and issued to the public at 95.60.

THE LOAN REMAINS IN GERMAN HANDS.

German loans are expected normally to be taken up very largely by German investors, and it was not planned to bring out any portion of the 800,000,000 marks in London or Paris. Berlin and Hamburg bankers made some effort to attract subscriptions in London, but as the loan is so vitally connected in the Englishman's mind with the aggrandizement of German naval power small results were expected and practically none were realized. There were some tenders from London and Paris, and relatively larger ones from Belgium, Holland, and Switzerland, but the new indebtedness, like the old, remains almost exclusively in German hands. At home the issue was well received, though by reason of the multiplicity of recent loans,—imperial, state, and municipal,—and because there is not at present a great deal of unemployed money in the Empire, the government had to content itself with seeing the amount subscribed a little less than twice over. Of the new securities, the sum of 490,000,000 marks was allotted to subscribers who undertook not to part with their holdings before March next.

GERMANY'S FINANCIAL GIBRALTAR.

For the floating of loans and the handling of securities the imperial government possesses every facility in the admirable German banking system. The system dates from the great banking act of 1876. During the first years of the Empire there existed many

scores of banking institutions which enjoyed a practically unlimited privilege of issuing notes. The consequence was an intolerable diversity of issues. The demand for unification culminated, in the act of 1876, in the establishment of the Reichsbank, or Bank of the Empire. Capital for the new foundation was supplied entirely by private individuals, but the Bank itself was placed under the immediate surveillance of the government, and between the two there have regularly been the closest relations. The Reichsbank has served all the purposes for which it was created, and it is to-day the veritable Gibraltar of German finance. In 1876 it had 206 branches; in 1905, 442. Of 1,484,000,000 marks in circulating bank notes in 1905, 1,336,000,000 represented the issues of the Reichsbank. The net earnings of the institution in 1908 were 37,020,000 marks, as compared with 52,300,000 marks in the more nearly normal year of 1907. The rate of dividend in 1908 was 7.77; in 1907, 9.89.

The Bank act will expire on January 1, 1911, and during the past winter the government prepared and submitted a bill for the renewal of the measure for another period of ten years. At the date of writing the bill had not passed the Reichstag, but there is small doubt that it will do so. The legal basis of the Reichsbank is to remain unchanged. There is to be no increase in capital, but there is required a yearly addition of 10 per cent. of the net earnings to the reserves, after the stockholders have received a preliminary dividend of $3\frac{1}{2}$ per cent. The institution is authorized to issue a larger amount of untaxed notes not covered by the stock of cash, and at last the legal-tender quality is to be given the notes of the Bank (such as is possessed by the issues of the banks of England, France, and Austria-Hungary), though this will have no appreciable effect upon the business practice of the German people, because the Bank's notes have long been received quite as readily as gold.

NO FALLING OFF IN BANK DEPOSITS.

Germany shared in the world-wide business depression of 1908, and the year was distinctly one of cheap money. Through the year the open-market rate of discount at Berlin averaged only 3.53 per cent., as compared with 5.12 per cent. during the trade boom year 1907. The ease of money was due, it is true, not merely to the relaxation of business, but also to the successful propaganda carried on by the bankers, backed by

the state and communal authorities, to increase the use of checks and banking facilities, so that very much more business is now transacted in Germany without the use of money than was the case four or five years ago. It was expected that the earnings of banks would fall off materially from the lofty figures of 1907, but the stockholders were agreeably surprised. The net profits of the thirteen leading joint-stock banks (headed by the Deutsche Bank at Berlin) in 1908 were 144,920,000 marks, whereas in 1907 the figure was but 143,620,000. Rates of dividend ranged from 5.5 per cent. to 12 per cent., and in only one case was there a decrease. In the same period twenty-six leading British banks fell off in their profits by a sum equivalent to 22,258,280 marks.

In Germany there was no counterpart of the great Leipzig Bank failure during the depression of 1901-1902. Indeed, there were no failures at all, except local and unimportant ones. Broadly, it may be said that the German people do not carry their money to banks in anything like the degree common in England and the United States. Yet in 1908 there was a substantial increase in deposits. At the close of 1907 the thirteen great joint-stock banks showed deposits of 3,883,880,000 marks; at the close of 1908 their deposits amounted to 4,140,000,000 marks. All of these banks pay interest on deposits. In 1908 the rates fell so low that it was supposed that deposits would be largely withdrawn for investment in securities. That they were not proved another of the surprises of the year in German finance.

FINANCING NEW ENTERPRISES.

Not that 1908 was in Germany a period of meager investments. It was indeed a year of heavy business in new flotations. It is estimated that the aggregate of new stocks and bonds brought out reached the sum of 3,110,000,000 marks, as against but 1,898,000,000 in 1907. The demand for new investments was heavier and the general trend of prices of bonds was upward throughout the year. These conditions were carried over into 1909. The March returns of the stamp tax, for example, show almost unprecedented activity in the issue and listing of new securities, and the investments for the month (aggregating 122,660,000 marks) were the heaviest since April, 1907.

It is the judgment of experts that, while the financing of Germany's home enterprises will long continue to absorb most of the

available capital of the Empire, ensuing years will witness a considerable increase in the placement of German capital abroad. An illustration of the tendency was the scramble to subscribe for 60,000,000 marks of Russian 4½ per cent. railway bonds early in the present year. The tenders for the issue were so heavy that subscribers were allotted less than 1 per cent. on their applications. At the beginning of 1906 the total of German investments abroad was 20,000,000,000 marks, when for France the figure was in the neighborhood of 30,000,000,000, and for England, 50,000,000,000. Of the German 20,000,000,000, about 9,000,000,000, or upward of half, were placed in countries across seas, —3,000,000,000 in the United States and Canada, another 3,000,000,000 in South America, 1,200,000,000 in Central America, and 1,350,000,000 in Africa.

REFORMING THE FINANCIAL SYSTEM.

An enterprising, patriotic, well-to-do people, at the flood-tide of national prosperity, —this is one aspect of the situation presented by the Germany of to-day. An antiquated imperial fiscal system, with steadily growing expenditures, deficits, and debts, —this is the other side of the picture. The logical thing to expect would be a grand attempt to harmonize the discordant conditions here involved, and that is precisely the task with which the Kaiser's government is busy to-day and has been busy for upward of a decade.

The crusade for the reform of the public finances which during recent months has been stirring the Empire to the depths had its origin soon after the passage of the great navy bill of 1900. Its primary aim has been to increase the imperial revenues through a revised scheme of taxation, but it has contemplated also a thoroughgoing regeneration of the fiscal system, especially with reference to the relations of the Empire with the federated states.

The first definite attempt at reform was made in 1902, when the Reichstag was brought to the point of patching up the revenue system; but the relief was only temporary, and in 1903 and 1904 the government was obliged to borrow 82,040,000 marks simply to cover ordinary expenditures. "I cannot conceal from you," declared Baron von Stengel, Minister of Finance, to the Reichstag in December, 1904, "that the prospect is a very dismal one, and I have no hesitation in asserting quite frankly that it is impossible to go on in the way we are doing."

Another effort at reform, in 1906, met with a larger measure of success. By an act of June 3 of that year two significant steps were taken in the direction of financial reorganization, and at the same time the revenues of the Empire were appreciably increased. For one thing, a definite program was mapped out for the liquidation of the debt and the utterly erratic policy of the Empire in this most essential matter was brought to an end. In the second place, it was enacted that the matricular contributions by the states must not in any year exceed forty pfennigs per capita, which meant a maximum of about 24,000,000 marks for the Empire.

The *ueberweisungen* were retained and the matriculants (long regarded as but a temporary expedient) were given essentially the character of a permanent imperial revenue, so that the progress made toward the eminently desirable disentanglement of imperial and state finances was not great; still, the problem was at least faced more squarely than ever before. To meet the government's demand for additional revenue the excise on beer was increased, a customs duty and also an excise was laid on cigarettes, a tax was imposed on certain inheritances, on railway tickets, and on automobiles, and local postal rates were appreciably increased. Still, the 230,000,000 marks asked for dwindled to 172,000,000; and, indeed, in 1907 the return from these various items was only 111,000,000. Deficits continued to pile up pretty much as before, culminating in that of 204,000,000 marks in 1907.

Somewhat more than a year ago the government began the planning of another attempt at reform, to be undertaken during the session of the Reichstag extending through the winter of 1908-1909. When, accordingly, the deputies assembled last November they were confronted, at the hand of the Imperial Minister of Finance, Herr Sydow, with a comprehensive statement of the fiscal situation, from which stood out in startling relief the assurance of a 150,000,000-mark deficit in 1908 and of successive deficits, during 1909-1913, ranging all the way from 282,000,000 to 457,000,000 marks, even though there were included in these calculations only the reduction of the debt and other projects of expenditure which the Reichstag is already on record as approving. At the strategic moment, on the 28th of November, the government's program, largely shaped by Herr Sydow himself, was laid before the Parliament. After being given

their first reading, the series of bills was referred to the select committee of the Reichstag on Finance Reform, where they slumbered until early in the present year, when they were brought forth to become the storm center of one of the fiercest party controversies in recent German history.

Much the larger portion of the program was concerned with readjustments,—especially, of course, increases,—in the imperial revenues, to the end that all ordinary expenditures may hereafter be covered by current receipts, and not only that, but that a policy may be instituted whereby, if it shall be followed up, the general debt may be defrayed during the course of the ensuing half-century. The scheme contemplated the revision of a number of the present revenues, the abandonment of a few, and the establishment of certain new ones. In the first place, the matricular assessments were to be retained, but, for a period of five years, the maximum contribution that may be required of any state is to be a sum equal to eighty pfennigs (instead of forty, as at present) per capita of the state's population, and thereafter the maximum figure for every quinquennium is to be determined by special imperial enactment. The *ueberweisungen*, likewise, were to be continued, in the form given them by the Stengel law, or "little finance reform," of 1904,—based no longer on the customs and tobacco impost, but only on the alcohol tax and upon stamp revenues. The matricular contributions and the *ueberweisungen* are so intimately bound up with the federal character of the Empire that their total abolition is probably at this stage chimerical, but it is the judgment of virtually all students of German finance that no scheme of fiscal reform can be wholly efficacious that does not provide for the complete independence of the Empire from the states in affairs of the budget. Not only does the system in operation to-day tend constantly to promote imperial extravagance at the expense of already overburdened states, but it introduces an element of perpetual uncertainty into the finances of these states which has more than once proved demoralizing.

The government's program provided, in the second place, for the abolition of the extremely unpopular tax imposed in 1906 upon railway tickets, and likewise for the remission of the increases made by the same legislation in local postal rates. The tax on railway tickets varies from five pfennigs to eight marks, according to the class of service and

the cost of the ticket, but fourth-class tickets (used almost exclusively by workingmen) and all others costing less than sixty pfennigs are exempted, together with tickets used in purely local and suburban transportation. Experience has shown that for Germany this sort of tax is of questionable utility, though it comprises an established feature of the fiscal system of England, France, Austria, and Italy. The abandonment of it in Germany means a loss of revenue of approximately 50,000,000 marks.

INCREASING THE TAXES ON SPIRITS AND BEER.

The dominant feature of the government's program, however, was a series of projects for the annual increase of present imperial revenues by sums aggregating upward of 500,000,000 marks. These proposals related to seven important imposts,—those, namely, upon alcohol, tobacco, beer, wine, successions, gas and electricity, and advertisements. Concerning alcohol the demand as originally made was for the establishment of a government monopoly of the wholesale traffic in the commodity, together with a tax estimated to produce 100,000,000 marks per year beyond the 120,000,000 marks already derived from this source. The scheme for a monopoly was abandoned when it became apparent that it could never be carried through, but the proposed increase in the spirit tax was adhered to rigidly.

The second proposal stipulated an increase in the present impost on beer. Beer is already taxed by the states, rather severely in Bavaria, Baden, and Württemberg (although it has long been in these southern states that the consumption of the commodity is greatest), and a beer excise has also been maintained by the Empire since 1872. In 1906 the rate was increased, though only half as much as the government desired, and the present annual yield is 75,000,000 marks. For so widely used a commodity this sum is ridiculously small, and the government's demand to-day is for an increase which will produce an additional 100,000,000 marks. Even at such a rate the beer excise would still fall by a third below that realized in England and in the United States. It is estimated that the proposed tax would increase the price of beer about $2\frac{1}{2}$ pfennigs per liter. Wine has also been but slightly taxed in the Empire, and a third feature of the government's program was an impost on wine in bottles to yield 20,000,000 marks. The tax

is a perfectly proper one, and it has encountered no opposition except on purely technical grounds.

THE TOBACCO TAX AND OTHER IMPOSTS.

The German Government has likewise been slow to avail itself of reasonable revenues from tobacco. Except for the imposition of a *banderole* tax, in 1906, upon cigarettes, the fiscal arrangements respecting tobacco and tobacco products have not been altered since 1879. The cigarette impost yields to-day 15,000,000 marks and the general tobacco excise but 70,000,000 more. The government is quite warranted in the conviction that in a country in which the manufacture and use of tobacco is so widespread as in Germany such returns to the treasury are needlessly meager. In Germany these returns are equivalent to only 1.49 marks per capita, as against 3.87 marks in the United States and 6.43 in Great Britain. In 1882, 1893, and 1894 the government sought an increase in the tobacco excise, but each time the attempt was defeated by the tobacco-manufacturing interests of the northern industrial states. The present purpose is to raise the tobacco tax to the point where it will produce 77,000,000 marks a year beyond its yield in 1907 and 1908, and to do it by imposing an excise upon the made-up bundle of cigars which will represent a burden of from 10 to 20 per cent. upon the retail price.

The fifth proposal was a tax of 5 per cent. of the cost of industrial electricity, and of lighting gas used for industrial purposes, with a maximum to be fixed beyond which the tax on each shall not in any case be allowed to go. A separate scale of rates was devised to apply to non-industrial consumption of the two commodities, graduated according to styles of lamps and circumstances of use. Still another of the new imposts was that upon advertisements, not alone such as are displayed along highways and in other public places, but also those appearing in newspapers and periodicals, with an exemption of "want ads," not more than five lines in length, relating to employment. The tax upon printed advertising ranged from 2 to 10 per cent. of the cost of insertion.

THE PROPOSED TAX ON INHERITANCES.

Finally, there was the impost on inheritances. It was long a tradition of the Empire that direct taxes are reserved to the federated states, but in 1906 the imperial gov-

ernment invaded the field by levying an impost upon inheritances, so arranged that approximately two-thirds of the expected returns (72,000,000 marks) would fall to the treasury of the Empire and the remainder would be divided among the states to compensate them in some measure for the loss of prerogative they had suffered. Great Britain, France, and other leading European nations have in late years vastly increased their returns from inheritance taxes, and the device has appealed to the German imperial government as too promising to be neglected. The law of 1906, however, has proved unsatisfactory because, in exempting all inheritances by direct heirs, it at once relieved more than three-fourths of the total number of inheritances from any measure of taxation at all. The government has, therefore, declared for a tax that will reach all categories of heirs and every inheritance that amounts, after all debts are paid, to as much as 20,000 marks. The rate as proposed progresses from 0.5 per cent. to 3.4 per cent. (the latter applying to inheritances of 1,000,000 marks and over), and the amount to be realized was put at 97,000,000 marks.

PROBABLE FATE OF THE GOVERNMENT'S PROPOSALS.

Such was, and with a few exceptions still is, the government's program. On the face of things, most of the proposals look reasonable enough, though some, particularly the imposts on electricity and gas used for industrial purposes, are of questionable expediency. But it is absolutely assured that the program will not be carried through intact. The taxes on gas and electricity, along with those on newspaper and poster advertisements, were voted down by crushing majorities in the Finance Reform Committee, and we have Chancellor von Bülow's word for it that they will not be revived during the present session. The beer tax has been accepted in committee, and the tobacco and wine imposts have been referred to sub-committees. The death duties were rejected in committee, but their ultimate fate has by no means been determined.

Before adjourning for the Easter recess the Reichstag voted through the budget in a rather helter-skelter fashion, cutting it down to 2,850,000,000 marks by dropping off approximately 10,000,000 marks from the army appropriation and half as much more from the estimates for the postal service. Upon its resumption of sittings after the three

weeks' vacation the chamber addressed itself once more, though somewhat languidly, to the government's emasculated program of fresh taxation. To the date of writing (June 1) the results have been wholly inconclusive. It is understood that the Kaiser's chief advisers are preparing projects to be submitted in lieu of the abandoned imposts on gas, electricity, and advertisements, but what these are to be remains as yet unannounced.

The political bearings of the controversy have assumed an unexpectedly striking character. Under the stress that has arisen the so-called "bloc,"—the coalition of Conservatives, National Liberals, and Radicals through which Chancellor von Bülow has heretofore been accustomed to control the Reichstag,—has been virtually dissolved, though whether permanently no one can say. Early in April the Conservative members of the Finance Reform Committee openly deserted their allies on a vote concerning the continuance of preferential treatment of the agricultural distilleries and combined with the Clericals, Poles, and Antisemites. Some weeks later the same members brought forward an Agrarian proposal to levy, in lieu of the death duties, a tax upon unearned increment, applying to both land and securities. The Clericals and Poles supported the proposition. The government pronounced it unsatisfactory and, for the present at least, quite impracticable. After a three-days' debate the scheme was defeated in committee by a tie.

In any event, the existing situation illustrates in a forceful manner an inherent weakness of the German political system. In England such a rebuff as was administered to the Kaiser's government in the contemptuous rejection of the proposed taxes on gas, electricity, and advertisements would mean an immediate resignation of the ministry. In Germany, on the contrary, so long as the Emperor wishes, the ministers keep up the attempt to push through their program, even though, as in the present case, they are hopelessly out of accord with any party or affiliation of parties in the chamber and the measures they are insisting upon are repugnant to the government's own adherents. The result is an *impasse* from which no way of escape is provided. The people merely look on in utter helplessness.

The situation also emphasizes the essential unsoundness of the government's traditional economic policy. That policy has involved the coddling of Agrarian interests, the shaping of taxation to meet the wishes of the large

landholders, who have been allowed to regard themselves as the dominant class of the Empire, entitled of right to the privileges of special legislation. The commercial treaties put in operation three years ago deliberately sacrificed the interests of the manufacturers and the merchants to those of the agriculturists, though the agricultural population of the Empire comprises now less than 29 per cent. of the whole. When, in recent months, the Agrarians refused to permit the adoption of even a petty legacy tax the government was but reaping the fruits of its own folly.

To the adoption by the Empire of an extended policy of direct taxation there lies the almost insuperable obstacle that the possibilities of direct taxes are already pretty fully exploited by the state and local governments. The imperial income tax, for example, which the Social Democrats are vehemently urging, is not feasible, because Germans already pay two income taxes, one to the state of which they are citizens, and another, a super-tax for local purposes, to the commune in which they reside. In parts of Prussia people of middle-class incomes pay to-day under these requirements as high as 10 per cent., and anything more would be equivalent to confiscation. State and local fiscal systems are organized so intimately around the income tax that they would be demoralized by the imposition of an imperial levy of the sort. At the 1908 conference of the Land Law Reform Society, Prof. Adolph Wagner proposed the enactment of an imperial tax on unearned increment; but here again the municipalities have forestalled the Empire, and the tax on increased valuations of land, such as has lately been imposed in many parts of Prussia, seems likely to become, along with the tax on incomes, a distinctive feature of local rather than of imperial finance.

The future of imperial taxation would appear to lie distinctly along the line of indirect imposts, particularly the increase of the present extremely inadequate excises. Among measures which in recent weeks have been suggested in lieu of the abandoned imposts on gas, electricity, and advertisements are a tax on matches, to raise 15,000,000 marks, an increase of the existing import duties on tea and coffee (which, however, would raise the "breakfast table" issue as a similar proposal recently did in the United States) to produce 40,000,000 marks, and the retention of the obnoxious tax on railway tickets. Tobacco, beer, wine, and spirits, however, clearly offer superior opportunities.

GERMANY'S GROWTH IN POPULATION AND INDUSTRY.

As to the ability of the German people to support increased taxation there has been much needless dispute. To be assured upon this point one need merely glance at the economic development and status of the nation and compare the burdens of taxation at present sustained with those resting upon the populations of other countries. Since the founding of the Empire thirty-eight years ago progress in population, industry, and wealth has been absolutely unparalleled in Europe. The increase in population in this period has been from slightly over 41,000,000 to approximately 63,000,000. In 1871 there were only eight cities having a population of more than one hundred thousand, and only 36.1 per cent. of the people of the Empire lived in urban centers of over 2000 inhabitants; in 1905 there were forty-one cities of more than 100,000, and by 1900 the percentage of urban population had risen to 54.3. According to the recently published results of the occupations census of 1907, the percentage of the population engaged in agricultural pursuits, which fell from 42.5 in 1882 to 35.7 in 1895, stands to-day at 28.6, giving the industrial and commercial classes a preponderance of almost three to one.

Since 1871 the production of coal within the Empire has been increased fivefold, that of pig iron threefold, and that of manufactured commodities generally in similar proportions. In 1872 German exports amounted to 2,494,620,000 marks and imports aggregated 3,468,480,000 marks; in 1908, although a year of depression, the figures as at present estimated by the German Statistical Office are for exports 6,841,000,000 and for imports 8,720,000,000.

REMARKABLE GAIN IN THE NATIONAL WEALTH.

The wealth of the Empire is piling up at a rate unknown in any other of the principal European nations. Herr Dernburg, the Colonial Secretary, estimates the increase during the two decades, 1884-1904, at 30,000,000,000 marks, and even the Social Democratic organ *Vorwärts* accepts the figure without protest. At the conclusion of a recent investigation of the financial status of the world-powers of to-day, Herr Sydow declared that "those who say that Great Britain and France are wealthier countries than Germany consider as still existing a state of

affairs which prevailed in the past, but which scarcely exists in the present." In a lately published volume upon the wealth of leading nations Herr Steinmann-Bucher affirms that while Germans were taught formerly to believe that Great Britain's national wealth amounted to 250,000,000,000 marks, and that of Germany to 200,000,000,000, at present the figure for Great Britain is 300,000,000,000 marks, and that for Germany 350,000,000,000. After critical examination of these estimates, Professor Delbrück gives them also the weight of his authority.

Despite the depressed conditions which Germany shared with the rest of the world in 1908, every indication points to almost unparalleled prosperity among all classes of the population. The income-tax returns for the kingdom of Prussia show for 1908 an aggregate of incomes 9.5 per cent. larger than that for 1907, which in turn was more than 15 per cent. in excess of that for 1906; yet it is charged by Professor Delbrück that, inasmuch as the assessments for the property tax in Prussia are demonstrably only about two-thirds what they should be, the evasions of the weightier income tax must be very considerable indeed.

THE GERMAN NOT HEAVILY TAXED.

Despite all the imposts that have been laid upon articles of consumption, it has been computed by Herr Neumann that the taxes and duties on salt, sugar, coffee, meat, bread, petroleum, tobacco, and fats called for an expenditure in 1906 of from 4.51 per cent. to 7.28 per cent. of an income of less than 800 marks, of 3.70 to 5.12 per cent. of an income of 800 to 1200 marks, and of 2.73 to 3.76 per cent. of an income of 1200 to 2000 marks.

The German is to-day less heavily taxed than the Englishman, the Frenchman, the American, or the Italian. Per capita estimates prepared last year by the Kaiser's Ministry of Finance are: Great Britain, 95.80 marks; France, 82.70; the United States, 80.80; Italy, 48.40; Germany, 48.17; Austria-Hungary, 41.70. The disparity between the tax-burdens of Germany and Great Britain is especially notable. Local taxation in the latter is two and a half times what it is in the former. British income taxes range from 9d. to 1s. in the pound, German from $\frac{3}{4}$ d. to 9 $\frac{1}{2}$ d. The British tax upon drink (the highest in the world) is estimated at 17s. 5d. per capita; the German is 4s. 5d. The per capita for tobacco in Great Britain is 6s. 2d.; in Germany, 1s. 5d. According

to the German Minister of Finance the British inheritance tax is nineteen times the per capita rate of that established in Germany in 1906. Germany's national debt is large, yet it imposes a burden of only 255 marks per capita, as against a similar quota of 265 in Austria-Hungary, 266 in Great Britain, 307 in Italy, and 621 in France; and a much larger proportion of it is represented by productive investments than in any of these other nations.

GERMANY SOUND AT THE CORE.

Financial conditions in Germany to-day are unsatisfactory enough, but manifestly in no wise perilous. The Empire has committed itself to gigantic enterprises the cost of which was not so carefully weighed in the beginning as it might have been. A new and virile world-power has been driven by the circumstances in which it has found itself, as well as by the restless aggressiveness of its political and industrial leaders, into paths of which the founders never dreamed. The consequence has been deficits, debts, embarrassment. But never for a moment has the solvency of the Empire been in question. The federated states stand constitutionally bound to maintain it, and the assets of these states are vastly in excess of their liabilities. Though it is the professed desire of the government to increase German credit abroad, that credit is already second to none. At the same time, the prevailing fiscal system is admittedly antiquated and awkward. Everybody would have it changed. Everybody recognizes that increased taxation in some form is inevitable.

Within the space of an average lifetime the resources and positive wealth of the Fatherland have increased almost beyond belief. What has happened is simply that the imperial government which has propagated the policies that have given the Empire its present status has grown weary of the effort to make bricks without straw, and has thrown back upon the nation the whole question as to whether it is at last ready to give to the modern imperial program the practical support that is indispensable to its continued success. The problem will be solved, and the world will be interested in its solution. The principal need of the hour is that it be lifted out of the slough of political controversy in which it at present lies imbedded, and that it be dealt with in the scientific spirit which the German carries ordinarily with such conspicuous success into his varied fields of enterprise.

LEADING ARTICLES OF THE MONTH.

DOES CAPITAL PUNISHMENT PREVENT CONVICTIONS?

AMONG the many perspicacious utterances of the late Henry Ward Beecher none was truer than his observation that "while the fear of hanging does not deter men from crime the fear of inflicting death deters many a jury from finding a just verdict, and favors the escape of criminals." This is cited by Mr. Maynard Shipley in an article in the *American Law Review* for May-June, in the course of which he presents some figures and opinions which tend to show that the sooner capital punishment is abolished altogether the sooner justice will come into her own.

The first State in the Union to abolish (1848) the death penalty permanently was Michigan; and, replying to an inquiry as to the results, Governor Austin Blair of that State said: "Before the abolition of the death penalty murders were not unfrequent, but convictions were rarely or never obtained. . . . Convictions and punishment are now much more certain than before the change was made. . . . The reform has been successfully tried, and is no longer an experiment." For purposes of comparison, it is interesting to note that, while in Michigan the percentage of convictions of persons indicted for murder was 28.2, in Massachusetts during the same period the percentage was but 10. Rhode Island, in 1852, enacted a law limiting the infliction of the death penalty to "condemned murderers who should attack their keepers"; and Governor Wye, writing twelve years later, said: "My observation fully justifies me in saying that conviction for murder is far more certain now in proper cases than when death was the penalty for it." According to Mr. Andrew Palm, in his work, "The Penalty of Death," the convictions in Rhode Island murder trials "were 65 per cent., as compared with 17 per cent. in Massachusetts during the same period." The abolition of the death penalty in Wisconsin was largely due to "the extreme difficulty experienced in securing convictions in murder trials . . . the great aver-

sion of many to the taking of life rendering it almost impossible to obtain jurors from the more intelligent portion of the community. . . ." Among nine States Wisconsin "showed the highest proportion of convictions to prosecutions,—namely, 40.5 per cent. During the same period (three years) in Idaho, of twenty-one persons indicted for murder in the first degree, not a single one was convicted as charged." In Maine, which abolished capital punishment in 1876, the proportions of convictions rose from 15.4 per cent. to 64.5 per cent. After four years of abolition the death penalty was partially restored in Colorado in 1901, the jury having the right to "decide in its verdict whether the penalty shall be life imprisonment or death by hanging. . . . Since the establishment of the law abolishing capital punishment 50 per cent. of murder trials have resulted in convictions." In Kansas the gallows, "after a quarter of a century of desuetude, was formally abolished by law." It was not until 1908 that Ohio abolished the death penalty.

UNWILLINGNESS OF JURORS TO CONVICT.

With regard to the States which still retain capital punishment, Mr. Shipley cites the opinions of a number of prominent men, all in favor of the abolition of the death penalty. Of these we summarize a few:

Massachusetts.—Representative Thomas L. Davis, speaking for abolition, said: "A jury drawn on a murder trial is often so awed by the responsibility placed upon them that rather than render a verdict that will take the man's life, for fear there is a faint possibility that he is innocent, although they know that he isn't, will disagree or bring in a verdict of not guilty." Mr. William Lloyd Garrison said: "This horror of inflicting the death penalty makes juries violate their oaths." Of 104 persons indicted for murder in 1901-'07, six only were convicted of murder in the first degree.

New York.—The late Edmund Clarence Stedman in 1869 said that "there was among jurymen and justices so strong a repugnance to taking human life that it had become doubly difficult to convict a prisoner on the charge of murder."

Connecticut.—Prof. William B. Bailey, of Yale, wrote: "Courts of law are fallible, and the consciousness of this fallibility is ever present in the minds of juries. There are many cases in which a jury is unwilling to convict when death is to ensue when they might be more willing to sentence a man to life imprisonment."

Labor unions generally oppose the death penalty. Mr. John J. Fitzpatrick, president of the Chicago Federation of Labor, when a candidate for the office of sheriff, said: "Organized labor everywhere stands for the abolition of capital punishment, and if I am elected sheriff I will do my best to further this civilized reform. I never have taken human life and do not intend to, even if my act would be sanctioned by law." A member of the Stationary Engineers' Union was

expelled "because he proposed that the number of capital crimes be increased."

There are perhaps some who agree with Prof. John Dewey, of the Chicago University, that there may be circumstances under which the death penalty is necessary; but even he admits that "where the moral opinion of the community is highly developed and where scientific penology has made considerable progress it is likely to be more harmful than helpful." Prof. S. F. Emerson points out another factor tending to make capital punishment impracticable, and, indirectly, leading to illogical verdicts: "Failure to convict for murder is largely the result of the feeling that society is measurably responsible for crime."

THE PRESENT FINANCIAL CONDITION OF THE COUNTRIES OF EUROPE.

THE national debts of the world in the form in which we know them to-day belong in their origin to the nineteenth and twentieth centuries, and are based upon present national regulations and activities and the development of the credit system. They are fixed and determined by the legislative powers of the several countries. The increasing interest taken by governments in the ever multiplying directions of national corporate life, particularly in the construction of great national works, as well as in wars, has led to the expenditure of vast sums from time to time for which the usual revenues were not sufficient. In this way the national debts of Europe have risen enormously. The figures showing the size of these national debts do not, however, constitute a proper basis upon which to estimate the wealth of poverty of any given state or nation, since in each case the value of the national possessions and undertakings should be taken into account in forming such an estimate. Therefore, says a writer in the Dutch review, *Vragen van den Dag* (Amsterdam), the figures given should be taken *cum grano salis*, while at the same time they may give some idea of the amazing activity of the nations concerned.

According to the Manual of Political Science the aggregate of the national debts of Europe in 1785-'89 amounted to \$2,070,600,000; in 1814-'18, to \$7,213,800,000; in 1845-'48, to \$7,967,000,000. After this they

increased still more rapidly till they amounted in 1874 to \$18,027,800,000.

In 1845 the national debt of Great Britain was still larger than that of any other European nation, being then \$3,819,200,000, as against \$792,000,000 owed by France. In 1874, after the expensive war with Germany and the payment of five milliards war indemnity, the relative indebtedness of Great Britain and France was reversed, France's debt at that time amounting to \$4,350,200,000, as against Great Britain's \$3,776,400,000. Since then France has kept this unenviable lead. According to Report VII. of "La Statistique Internationale des Valeurs Mobilières," worked up by Alfred Neymarck, 1908, the national debts of Europe have risen, since 1866, to the following figures, in round numbers: In 1866 they amounted to \$13,200,000,000; in 1870, to \$15,000,000,000; in 1887, to \$23,400,000,000; in 1906, to \$29,600,000,000. The interest paid on these enormous sums for the respective years was \$480,000,000, \$600,000,000, \$1,060,000,000, and \$1,340,000,000.

During the past twenty years the aggregate debt of Europe has increased by over six billion dollars, the annual interest by nearly two hundred million, and the annual outlay for military purposes by four hundred million dollars. The aggregate military expenses of Europe thus amount to some two hundred millions more annually than the interest on the debts.

France takes the lead in the amount of her national debt, and equally of course in the interest paid on the same. And this is true not only in the entire amount of interest annually paid, but in the share borne in this by each inhabitant. In Russia, on the other hand, although

the country has an aggregate indebtedness four-fifths as great as that of France, the interest per capita amounts to but little more than one-third that of the latter country. The burden of taxation must press far more heavily on the individual there, however, because of the inferior earning capacity of the average Russian.

With what enormous strides the national debts of the various European countries have recently advanced can be further seen from the following: In 1906 Germany's debt had increased over the amount of any previous period by \$654,000,000; that of Belgium, by \$124,000,000; that of France, by \$87,000,000; while to Great Britain's has been added \$61,920,000. The increase in the aggregate expenditures for military purposes by the nations of Europe is shown by the following figures: In 1866 the total amount spent for the armies and navies amounted to \$600,000,000; in 1870, to \$700,000,000; in 1887, to \$900,000,000; and in 1906, to \$1,340,000,000.

The table below gives the latest figures as

to the total national debt of each European country:

	Debt in millions of dollars.	Annual in- terest in millions.	Per capita, based on the census of 1900.
Austria (1907).....	2,018	80.8	3.08
Belgium (1907).....	666	25	3.78
Bulgaria (1907).....	69.6	6.4	1.72
Denmark (1906).....	66.6	2.2	.88
Finland (1906).....	28	1.2	.44
France (1907).....	5,835.4	246.4	6.32
Germany (1907).....	4,220	165	\$2.92
Great Britain (1906)...	3,945	155	3.70
Greece (1905).....	179	17.2	2.88
Hungary (1905).....	1,140	40.8	2.12
Italy (1906).....	2,604.4	115.4	3.56
Luxemburg (1906)....	2.4	—	—
Netherlands (1907)...	478	15.2	2.98
Norway (1905).....	83	3.2	1.44
Portugal (1905).....	800	24.4	4.50
Roumania (1907).....	287	16.8	2.80
Russia (1907).....	4,591.4	202	1.86
Serbia (1907).....	110	5	2.08
Spain (1907).....	1,829.2	81	4.20
Sweden (1906).....	105.6	4	.76
Switzerland (1906)...	20.2	1.2	.22
Turkey (1905).....	474	—	—
Total.....	\$29,552,800,000	\$1,208,200,000	

THE TREND OF SPANISH-AMERICAN POLITICS.

THE world looks on South America through foreign eyes. To reverse this process,—to show that both for good and evil the Spanish-American republics of South and Central America are but the legitimate and inevitable results of the history of the mother nations,—is the attempt of Señor Carlos Arturo Torres, in *Nuestro Tiempo*:

During the first century of independence political movements in Spanish America reflected only the correlative movements of European nations, with their real character refracted, attenuated, or exaggerated according to the occasion. American nations were but formed of the aluvium and detritus of the Old World; the native element has lacked a reason for instituting its own initiative. Mistakes and Utopias, spasmodic reform and the weakness of prostration, as well as generous deeds and happy adaptations, are nothing but a feeble echo of events beyond the seas. European judgment, implacable in its severity, forgets too easily the inheritances of the new nations and condemns them in a breath as "brutes of vicious propensities." Heinrich Heine has delineated the most gallant and genteel representative of these nations: "His brow wreathed with laurel, gold spurs glittering upon his heels,—with all that, he was no hero,—not even a gentleman,—nothing but the leader of a robber-band who, with insolent hand, inscribed in the book of fame his insolent name,—Ramón Cortés."

The colonies of Spain as contrasted with those of England never possessed any form of representative government. "Englishmen and Anglo-Americans were unequal in liberty; Spaniards and Spanish Americans were

equals in slavery." Arbitrary centralized power, owing but a loose allegiance to the crown, soon sowed the seeds not only of revolt but of tyranny. "Your orders shall be obeyed but not fulfilled," was once the insolent response of Belalcázar to the message of his sovereign. The fruits of their nation's history were soon gathered, in the names of Miranda, Nariño, Bolívar, Sucre, O'Higgins, Belgrano, San Martín, and Santander, at once men and soldiers, thinkers and at times statesmen of the first order, with generous hearts and lofty spirits. We have the marvelous prediction of Bolívar in 1815 as to the future of Spain's vast dominion in America: "Mexico will be a Republic with a president holding office for life; Central America will form a confederation whose canals shall shorten the roads of the world; New Grenada, Venezuela, and Ecuador will form the Republic of Colombia; Chile will be the most stable of the republics, and Peru will be the prey of lasting trials, for it has in its lap the two foes of order,—gold and slaves."

Three well defined characteristics early show forth in the politics of Spanish America,—conservative traditional authority, draconian militarism, and doctrinary radicalism. To the two latter the strictures of the writer Seignobos well apply: a populace accustomed only to obey the clergy and popular leaders, their only ideas of liberty obtained from

European books, and whose leaders are men whom peace leaves without employment. Notable exceptions belonging to the conservative class are Portales in Chile and García Moreno in Ecuador,—men of power in their day but whose influence went with them to their graves. Men of the other types, Santa Ana and Juárez in Mexico, Carrero in Central America, and Murillo in Colombia, some of them "civil war incarnate," men who in Shakespeare's words placed "politics above conscience," nevertheless have left their mark upon their countries' history. They have fulfilled their mission of devastating hurricane, and their countries, like the earth after a physical cataclysm,

break forth into the fresh growth of a new civilization.

In Argentina, a nation whose code has been called "the most liberal and democratic in America, if not in all the world," Murillo appears as the genial exponent of this budding and fruitful America. The same state is under a President, Sarmiento, who has become known as the "Founder," and whose motto is,—*"Build schools; revolutions will cease."* It is the Renaissance after the Middle Ages.

The republics have condensed into one century of life many centuries of history. They came newly born into a world already grown old. Guided by the mirage of an impossible millennium they have passed through many transitions. Their errors were to attempt the ideal, but they have worked, have labored, and have striven.

THE DANGERS OF UNDEREATING.

IT is a common saying among vegetarians and other apostles of a slender regimen that "man digs his grave with his teeth, and that two-thirds of our diseases are due to overfeeding." To such the facts advanced by Dr. Woods Hutchinson in the *Cosmopolitan* will doubtless cause considerable perturbation. Certainly some weighty arguments will be necessary to disprove them. The habit of eating "was early seen to have two serious drawbacks: it was expensive, and if one ate too much one became uncomfortable. *Ergo* to eat as little as possible, consistent with survival, was a virtue." Various tests have been made as to the minimum diet on which life can be sustained.

A squad of soldier volunteers, as brave as any that ever faced the cannon's mouth, may survive for six weeks on a laboratory diet calculated by the higher mathematics and consisting of proteids, carbohydrates, and hydrocarbons instead of real food; but what would be the result the next time they happened to be exposed to typhoid, tuberculosis, summer dysentery, or even a bad cold? What was the effect of this starvation diet on such a squad has already been told by Major Woodruff, and it does not exactly encourage imitation. Five out of nine reported that they felt badly and were always hungry during the test, and were weak and depressed at its close; and all but one had gladly returned to regular diet. One who had continued the diet for three months thought he had been injured by it, and another thought he would have died if he had continued on the diet. Several confessed that they had been compelled to go out and get a "square meal" repeatedly during the test, and that others did the same. Moreover, one of those who was later placed on such a diet,—a young man in the prime of life and vigor,—died of a comparatively trivial disorder, which developed hemorrhagic complications, for

no other reason whatever that could be ascertained than his prolonged food-deprivation.

Dr. Hutchinson holds that "it is no principle of progress to hold men down to a starvation diet any more than it is to starvation wages; and while economy may be an admirable thing in business, it is, in dietetics, usually not only short-sighted but wasteful, for compared with human life and health food is one of the cheapest things there is." Time was when a superintendent of a hospital, if he wanted to make a record for economy, would cut down the expenditures on the food bill. Now "many of our hospitals, particularly those for the care of the insane, are beginning to see light on this subject, to provide a more abundant and attractive dietary, to consult the appetites and preferences of their patients, and to allow their physicians, instead of the superintendent or matron, to control the precise diet of each patient, with the result that money is actually being saved by curing the patients faster and enabling them to get up and go back to work in a shorter time."

With regard to the view that the appetite is a "mere gross animal impulse which it is a positive virtue to thwart and suppress," the overwhelming consensus of opinion "of the laboratory, the hospital, the family physician, the sanitarium, and the diet-kitchen is that the appetite is to be treated with the greatest respect, is to be thwarted only for the best of reasons and in special emergencies, and is, all things considered, the most reliable, indeed almost the only guide that we have in matters of diet."

The now famous standard diets, laid down by Pettenkofer and Voit about fifty years ago, ranged from 1500 calories or heat-units for the subsistence diet to 4500 calories for the heavy-work diet; and "these figures have never been markedly altered by the thousands of tests, both practical and laboratory, to which they have since been submitted." The subsistence diet is the smallest amount that will prevent starvation. Now the modern starvationists claim "that the human body can be maintained in full working power and much better health upon 1800 calories, some of them even going so low as 1200 and 1000." On this Dr. Hutchinson remarks:

No normal, average, unspiritual individual has ever been able to live upon any such diet as 1500 calories a day without impairing either his health or his working power. One of two results practically invariably follows: either the dietary is abandoned altogether, or the standard is quietly hitched up from 30 to 50 per cent.

From the extraordinary claims put forth for the advantages of a slender diet one "would surely conclude that the most imposing array of diseases in our text-books of medicine and the hugest totals in our death-lists would be found directly and unmistakably enrolled under the head of diseases due

to overeating . . . and that under the head of diseases due to underfeeding there would be found a vast and eloquent blank." What are the facts?

Of the forty-two principal causes of death in the United States census of 1900 only three are to be found which are in any way due or possibly related to overfeeding,—diseases of the stomach, diseases of the liver, and diabetes. . . . On the other hand, those diseases which are either directly due to underfeeding or in which the mortality is highest among those who are poorly fed and lowest among those who are abundantly fed,—consumption, pneumonia, diarrheal diseases, typhoid, and inanition (a polite official term for starvation),—account for a death-roll of 250,000 victims, or nearly 30 per cent. of all the deaths.

Again, "the stern and unimpeachable records of mortality and morbidity show that the blameless and frugal people have the highest death-rate, the highest disease-rate, and the lowest longevity-rate of any class in the community." Finally, there is the significant fact "that practically every prolonged famine is followed by the outbreak of some epidemic. In fact, from one-half to two-thirds of the deaths in a famine are due to some form of fever, which the lowered nutrition of the victims has allowed to gain a foothold."

CARROLL D. WRIGHT—A COLLEAGUE'S TRIBUTE.

COLONEL CARROLL D. WRIGHT, at the time of his decease, had held the presidency of the American Statistical Association for twelve years. On May 14 last the members gathered at a special meeting to listen to an address on the life and work of their late president from Mr. S. N. D. North, the senior vice-president. This address has been printed in the *Quarterly Publications* of the Association; and it is a striking testimony to the worth of the deceased statistician.

Colonel Wright was born in Dunbarton, N. H., July 25, 1840, his father being "a devout country preacher of the Universalist denomination." After studying in rural academies, and teaching school to pay his way, he left home at sixteen, and two years later was studying law. When twenty-two he enlisted as a private in the Fourteenth New Hampshire Volunteers, Company C, and at the close of the war he had risen to the command of the same regiment. Resuming the study of law, he was in due course

admitted to practice. In 1871 and 1872 he served as State Senator for the Sixth Middlesex District in the Massachusetts Senate; and in the following year he became Commissioner of the Massachusetts Bureau of Statistics of Labor, which had been created in 1869, and which was the first of the kind in the country. This was the turning-point in his career. To quote Mr. North:

It can hardly be said that he dropped his profession with the deliberate intention of never returning to it: he could not foresee what was to happen; but it is certain he was tempted into the new field by a vague realization of the possibilities it offered for a great governmental innovation. It appealed to his sympathies and aspirations as offering a unique opportunity to do the world a peculiar service. Once his hand was put to the plow he neither faltered nor hesitated nor regretted. He had found a mission in life. He found himself fitted into just that niche for which his mind and temperament were best adapted. It was given to him to fill this niche for the forty best years of his life; to expand it and enlarge it, as he himself developed and grew; to become recognized throughout the civilized world not only as a pioneer,

but as the greatest exponent of a new gospel of industrial ethics.

Governor Washburn, when offering the new post, is reported to have said to Colonel Wright: "I have watched your work on some measures in the Senate. I think I know you, and now I want you to take charge of this Bureau of Labor, and make it or bust it!" As the world has seen, the young man did not "bust" it. From the first he refused to make his office "an engine of factious agitation and partisan propaganda." His predecessor in the presidency of the American Statistical Association, Gen. Francis A. Walker, had said to him, anent the Bureau, "I have strong hopes that you will so distinctly and decisively disconnect the Massachusetts Bureau from politics . . . as to command the moral support of the whole body of citizens and receive the co-operation of men of all occupations and degrees." It was on these lines that he conducted the Bureau. To quote Mr. North further:

In the thousands of pages of official reports and investigations which have appeared over President Wright's name there is not an instance of departure from the narrow pathway thus laid down. . . . They contain conclusions which were frequently controverted,—from some of them I have myself dissented,—but there is no instance of a partisan bias or a prejudiced perversion of the truth.

In 1885 Colonel Wright was appointed the first Commissioner of the new National Bureau of Labor; and here, again, he "disarmed criticism by his sane and conservative methods." He gradually won the respect of the ablest labor leaders; his attitude toward the trade-union was distinctly friendly, though he deprecated the excesses that at times characterized its methods. The employers also trusted him. He "held and fearlessly enunciated a doctrine regarding their duty and their opportunity which lifted the manufacturer above the . . . mere seeker after dollars." He remained at the head of the two bureaus, the National and the State, as long as he cared to stay there; and, compelling the complete confidence of his fellow-men, he came to be known as "the sane seeker after truth." This, in Mr. North's judgment, was the key to Colonel Wright's character and career; and he dwells upon it somewhat fully. We subjoin a few extracts from this part of the address:

Colonel Wright was a man of great tact. He was what is known as a good "mixer." He could fit himself to every environment. In per-

sonal intercourse he was cordiality, kindness, and good humor combined. . . . He had an anecdote to fit every emergency. He could relieve a taut situation by a flash of quaint or subtle humor that would force a laugh on the verge of a quarrel. He was pre-eminently a pacificator; his mission was to point the pathway to peace; and he had consummate art in finding it. But never at the sacrifice of his own convictions. . . .

In the anthracite coal strike of 1902 Colonel Wright was, "from the beginning to the end, the trusted adviser of President Roosevelt." His report on the situation contained suggestions "that seem desirable and just" for ending the controversy; but they were not accepted by either party, and the great strike followed.

Outside his official world Colonel Wright was a lecturer on economics, an "attractive personality on the platform, his services being always at the disposal of any good cause"; and a bibliography of his writings, which Mr. North has prepared, "embraces no less than 350 titles." He was an active member of the trustees and executive committee of the Carnegie Institution at Washington; and in 1902 he accepted the presidency of Clark College, Worcester, Mass. Of his connection with the last-named institution Mr. North says:

He put Clark College on its feet, bringing into its organization and methods certain new and practical ideas, destined to work something of a revelation in our American colleges. From the day that Clark College opened its doors with President Wright as its head it was a success; and it will continue to grow and to thrive because it will cling to his ideals.

Any true estimate of Colonel Wright's character must, in Mr. North's opinion, take account of his philosophy:

At the foundation of this philosophy was the instinctive sense of justice. In working out a theory of life, based upon the sense of justice, President Wright troubled himself very little with the abstractions of political economy. . . . He dealt with the nature and grounds of moral obligation and the rules which ought to determine conduct in accordance with this obligation. This is the spirit which always underlies his analysis of statistics and his interpretation of a given statement of facts. . . . Looking still deeper into President Wright's philosophy we find its full and final explanation in the profoundly religious spirit of the man. . . . "There is a new religion," he wrote,—*"a religion of progress."* . . . The study of life's problems convinces me that there is coming a revival of religion which shall hold in its power the church, industry, commerce, and the whole social fabric. Any solution, all solutions, must embody within themselves some phase of such a religion, and unless they do they will have no force."

EVOLUTION OF THE PERSIAN SITUATION.

IF any monarch ever had his hands full of trouble at the moment of his ascending the throne that ruler is Mohammed Ali, Shah Kadjar and Shah in Shah (King of Kings), who assumed the crown of distracted Persia in January, 1907.

He found a weak, impoverished country, a ragged, long-unpaid and mutinous army, a huge expensive harem, and, most troublesome of all, a Constitution and a Parliament. In a luminous and comprehensive summary of the present situation in Persia, which appears on the editorial page of a recent issue of the *New York Sun*, we find these paragraphs describing the inception of the Persian Parliament:

The strange parliamentary impulse of the Persian people, who were not supposed to have emerged from the "Dark Age" stage of progress, developed early in 1906. The National Assembly met on August 12. The Constitution was framed in December. Muzaffer-ed-din [father of the present Shah] was sick unto death, but the instrument was brought to him and he approved it. Then he and Mohammed, his son and heir, signed a separate paper, swearing on the Koran that they would not dissolve



MOHAMMED ALI, THE DEPOSED SHAH OF PERSIA.



SIPAHDAR KHAN, PERSIAN NATIONALIST LEADER AND NOW MINISTER OF WAR.

the Parliament for two years. The document was unsatisfactory to the new Senate. It had to be revised. The work was speedily done and the Shah and his heir again pledged their adhesion to it. Then Muzaffer died, and the new Shah not only swore for the third time to support the Constitution, but gave out a program of the reforms which he hoped to accomplish with the aid of the Parliament. His reign, however, was troublous from the outset. One of his brothers instantly popped up as a pretender in Luristan, a province on the Turkish border. His revolt petered out in a little while, but the Turks renewed the trouble which has lasted for more than a hundred years over the boundary between their Asiatic territory and the Persian Empire. This, too, came to nothing.

The issue was staved off after some trifling bloodshed. But there was no putting aside the troubles with the Parliament which actually started with the reign itself. The leaders of the National party, in control of the Parliament, demanded ministerial responsibility, control of the finances, and an immediate radical reform of administration throughout the country, with cessation of despotic cruelty, grafting and oppressive taxation. The Shah replied that they might as well demand a republic at once, yet when it came to the breaking point he gave in, surrendered every point. All this took place within a month after his accession. His surrender, the first of many, was on February 12, 1907. On this same day broke out the first of a



THE PERSIAN REVOLUTIONARY LEADERS WITH THEIR SUBORDINATE CHIEFS.

(The two men in the center are Sattar Khan and Bazu Khan, famous free lance chieftains.)

series of riots in Tabriz, the capital of Azerbaijan, the northern province of Persia on the Russian border.

The details of Shah Mohammed Ali's conflict with his Parliament are tedious and unimportant. They consisted of alternative resistances and surrenders on his part as the legislators pressed demand after demand upon him. Troubles increased. The Grand Vizier, Amines-Sultan, was murdered in the Mejliss, the Parliament building, on September 2, 1907. The struggle seemed to be at an end on December 7, when the Shah once more signed a declaration, swearing by the Koran to uphold the Constitution and co-operate in the reforms demanded by the people. This event had an important result early last month when the mujtehid, or holy men of the Shiite sect of Mohammedanism, excommunicated Mohammed Ali for perjury in breaking this oath, thus rendering him ineligible to reign and paving the way for his deposition.

The end of the struggle with Parliament, or, rather, the end of the first battle, came in June, 1908, when,

in response to a proposal to cut his personal income to \$500,000 a year the Shah's artillery opened fire on the Parliament building and the streets of Teheran flowed with blood for two days, as the despot's soldiery butchered members of the Assembly and Nationalist leaders and sympathizers wherever they could find them. Curiously enough, the Shah and his following managed to create the impression that the suppression of the liberal movement was excusable if not actually praiseworthy. Its leaders were blackened with accusations of cruelty and oppression toward their opponents, and perhaps the charges were not wholly untrue. This massacre was the end of Persia's first Parliament, but it was far from the end of the Shah's troubles and vacillation in respect to the parliamentary question. He has at least two or three times in the last half year issued proclamations of the renewal of constitutional government, and each time except the last he has withdrawn the concession.

Under his last proclamation, issued under great pressure applied by England and Russia, the nineteenth day of last month was set for a general election of a representative assembly, and a new election law was promulgated for the occasion. The election preliminaries are actually going on parallel with the fighting.

If it seem strange that a constitution, parliamentary institutions and a reformed administration should be so insistently and persistently demanded by a people apparently backward as the Persians are there are really good reasons for the Persian state of mind. Dr. Mirza Abdullah and Rahim Zadeh, delegates sent recently by the Nationalists to Paris to present their side of the situation, have been at some pains to explain the movement. In condensed form this is their explanation:

First of all, Persia, like India, has "caught the rebound" from the Russo-Japanese war. The stagnant nations are awakening, and Persia is one of them. The national awakening in India has had a still stronger effect. But above all it is the reform movement in Russia that has stimulated the Persians to throw off the yoke of despotism. Under this deadly régime Persia has not been able to support its people. They have swarmed by thousands across the Russian frontier in search of work. There are 50,000 of them in Baku; there are thousands in Astrakhan. Every port on the Caspian and the Black Sea has its contingent. The petroleum region of the Caucasus is full of them. They have ascended the Volga. They are stevedores at Odessa and Constantinople and Batum. Everywhere they are in contact with the men of advanced ideas, Young Russians, and Young Turks. In this the whole story is told. They absorb the ideas of liberalism. They send them home in letters; they take them home when they return with their savings. These exiles are the leaven that has started the Persian ferment.

The future of Persia is in the hands of the

foreigner, the Russian, and the Englishman. The Shah, unlike Abdul Hamid, has not been captured with the city. He is safe in his summer palace, and he talks vigorously of besieging the rebels in the city they have won. To quote the *Sun* again:

Probably his energy will expend itself in talk, but there is the Russian force under General Snarsky already in the country,—sixty-eight miles from Teheran at last advices,—to reckon with, and other troops are being hurried from south Russia across the border. Of course the Persian liberal forces are no match for Russia, still less if England sends a corps of her Indian troops to aid in "the work of pacification." She has intimated that she might do this.

The political situation is not clear. Early in June the *Vossische Zeitung*, a semi-official Berlin paper, published an outline of a tripartite treaty between the Shah, England, and Russia, guaranteeing the rules of the first named and parceling the country into "spheres of influence" between his allies. The denials of such a treaty made in London have not been convincing, and if it exists it may be taken for granted that the two Powers will keep Mohammed on the throne at all costs.

No doubt some sort of popular government will be installed and reforms will be made, but the Shah will reign under tutelage of English and Russian "residents." That is to say, if Germany does not interpose objections. The Kaiser has long regarded Persia as a future appanage of his crown. Perhaps he will try his Moroccan tactics over again.



THE ONLY RAILROAD IN PERSIA.

(Ten miles long and single track from Teheran to the shrine of a former Shah.)

HELLENISM IN THE ÆGEAN SEA AND IN ASIA MINOR.

FROM the remotest times the Ægean Sea has played a preponderant rôle in the evolution of the Hellenic world, both in regard to political expansion and military power and to the development of her intellectual activity. The Greek nation owes much to the sea, writes Mr. N. Kasasis in *L'Hellénisme* (Paris).

It is on the sea that the Hellenic race has achieved its most glorious exploits; but the Ægean Sea has been a benefactress to all the countries of Europe. She was the way by which entered the civilization and culture of ancient Asia, fertilizing the young Aryan races. The island of Cyprus was the first halting-place of the maritime expansion of the Phœnicians, whence Asiatic civilization spread over the Hellenic regions, over the shores and islands of Asia Minor and of Europe. Under the influence of the Greek spirit this civilization has undergone a marvelous transformation.

In the first centuries of Greek history the three islands of Lesbos, Samos, and Chio

were the most important of the archipelago. To-day they are the most active centers of the Ægean region. The island of Lesbos (Mitylene) is now entirely Greek. The number of Mussulmans decreases little by little; and these, reduced to-day to some thousands of individuals, are spread over the whole extent of the island.

In spite of the fertility of its soil, and its exceptional geographical position, which dominates the coasts of Asia Minor, the island of Mitylene is unable to sustain a population numbering about 150,000 souls; and emigration is, therefore, imposed upon the inhabitants as a necessity. . . . Their activity extends far beyond Ionia to Asia Minor, where, in certain regions, they ought to be considered, like the Chiotes, as the veritable pioneers of civilization, founding everywhere schools and churches, those two most powerful factors of Greek culture. Lesbians are found in all the great commercial centers, in Constantinople, in Egypt, in Roumania, and in southern Russia; but they never definitively abandon their native isle, and,



TURKISH SAILORS ON THE ONE BATTLESHIP OF THE PORTE, PREPARING FOR A CRUISE TO SUDA BAY, CRETE.

as soon as they have acquired a fortune, they return to it.

The island of Chio enjoys a similar prosperity to that of Mitylene, and maintains intact its ancient Ionian character. The Chiotés contributed largely to the material renaissance of Greece under the Ottoman yoke.

We see to-day in Chio, as in Lesbos, that the efforts and the will of the inhabitants of the Greek race,—who form nearly the whole of the population,—seconded by the material aid of Chiotés settled abroad, have made the island a prosperous one from every point of view, in spite of the Ottoman administration.

The island of Samos enjoys a certain autonomy, but it does not cease to aspire to complete liberation. The other islands of the Ægean, such as Lemnos, Thassos, and Rhodes, not to speak of smaller ones, have not the same importance, from the Hellenic point of view, as those mentioned above.

If one passes from the islands of the Ægean Archipelago to the Asiatic coast he finds himself among a nature and a population not sensibly different from those which he has left behind.

The soil of this Hellenic region of Asia Minor is in fact as Greek as that of any province of Greece proper. . . . It was here that the Greek race made its début in history. . . . In this Greek land of Asia Minor human thought found its first emancipators.

But in the times when the hordes of the conquering Mussulmans fell like a waterspout on Asia Minor, its peoples and fair provinces were one after another devastated by the victorious sword of the Osmanlis. The forcible conversion of the inhabitants to

the Mussulman religion by many cruel and inhuman means changed the aspect of Asia Minor to that of a province almost totally Mussulmanized.

In certain parts of Asia Minor the inhabitants of entire villages had their tongues cut out in order that they might not transmit to their children the national speech; and the legend runs that in the early times of the Mussulman conquest a caravan of ten camel-loads of human tongues was sent to the Padishah as homage!

To-day, in spite of its apparent prosperity, Hellenism in Asia Minor is face to face with grave dangers,—from the Church and from the Mussulman authorities themselves. The Catholic Missions, says Mr. Kasasis, too often pose as adversaries of Hellenism in these countries. Another danger that threatens the future of Hellenism appears under the form of a Germanic invasion.

Since her last political regeneration the Germanic world has turned its attention to the Turkish provinces of Asia Minor. Twenty years ago the eminent economist Dr. W. Roscher addressed his compatriots thus: "In Asia Minor we shall be able, after pacific conquests, to found a new Germany, which in power, population, and wealth will equal the old Germany, and will form the surest rampart against Russia and Pan Slavism." The new German policy sustains, under the direction of the Hohenzollern, the conquering traditions of the Middle Ages. The journey of Emperor William to the Holy Land, to worship at the tomb of the Savior, and to Constantinople, to embrace, at Yildiz, his "great friend," is well remembered; and the importance of the services rendered by the same emperor to the Sublime Porte, to the detriment of Hellenism, is likewise not forgotten.

Will the change of sovereign and régime at Constantinople cut short this dominance of Germany in Turkey?

TURKEY, GREECE, AND CRETE—THE TURKISH VIEWPOINT.

THE hostile attitude of the Turkish press toward Greece because of the aspirations of Crete to become part of King George's kingdom had become so intense during the month of June that the Greek foreign minister brought the matter to the attention of the Turkish diplomatic agent at Athens. It will be interesting in this connection to note some of the few representative utterances from Turkish publications on the long-vexed question of the present and future of the island of Crete. One of

the Young Turkish organs, the *Tanine* (Echo), declares:

A real Cretan question exists, and many are the different interests that clash in that unhappy island. As for us Turks, we declare energetically that we will never discuss the proposition to settle this question, under European pressure, with gold. We will not even listen to such a proposition. Even if the powers retire from the island and Greece does not take possession we will not be able to say that Crete is ours, since justice is still administered in the name of the King of Greece and the Cretans deny that they are a part of the Ottoman

Empire. Such a situation is intolerable. The very first and chief duty of our foreign minister is to prepare the army and navy and say to the rest of the world: "We are ready!" . . . We Turks do not propose to withdraw the autonomy we have given to Crete. We cannot, however, accept a commissioner appointed by the Greek king. Crete cannot be administered by a commissioner; it requires a vali [the Turkish term for governor of a Turkish province,—a vilayet] or a bey. We would not object if this vali should be a Christian, even a Cretan Christian; nor if the Cretans themselves demanded a vali from a foreign reigning family would we object.

Other Turkish journals do not entirely agree with the *Tanine*, among them the *Ittihad* (Union), which says:

Even though Greece continues to show us the same degree of friendliness as heretofore there is still a power urging the Cretans on toward the realization of their aspirations. This society, the *Ethniki Etairia*, is exciting the Cretans to demand annexation to Greece. We agree with the *Tanine* as to the nomination of an Ottoman or a Cretan vali, even a Christian; but we will certainly oppose the nomination of any foreigner.

Replying to a frank editorial in a recent number of the *Paris Temps*, the *Siperi-Saikai-Hurriett* (Lightning-Rod of Liberty) declares:

If the powers desire to return the island to us they must, since they received it in trust, return it to us intact. Such is the Ottoman point of view. If, however, the powers leave the island and Greece invades it, we will see what we can do to stop her. All the Mussulman element on the island is opposed to the annexation to Greece. We understand this and will never go back on our word. We accept the Cretan idea for a native militia, but not under orders of Greek officers. We will not send a military force to the island unless absolutely necessary, but the Cretan harbors will be occupied by our warships, and we intend that the governor shall be nominated by ourselves. These are our rights; Greece has none.

Another well-known Turkish journal, a very old one, which has recently reappeared after a long period of suspension, the *Yeni Tasviri-Efkiar* (New Idea), says:

We are ready to sacrifice our lives to keep the island. If our friends, the Greeks, can afford to pay this price for it let them begin the game. On no other condition will they get it. But we sincerely hope that Europe has not quite lost all her logic and that she will not force us to have recourse to violence. . . . If we have settled the Bosnian and Bulgarian difficulties by the payment of indemnities, this was not a price nor a sale, but a diplomatic arrangement imposed on us by a great war with a great power. No such solution can be obtained of the Cretan question.



THE TURKISH CABINET CONSIDERING FOREIGN AFFAIRS AT SAN STEFANO.

(The figures seated in front, beginning at the left, are: Hussein Hussni Pasha, who conducted the inventory of the deposed Sultan Abdul Hamid's treasures at Yildiz Kiosk and compelled the former monarch to return to the nation a large part of his fortune; Chevet Pasha, now virtual dictator of the new Turkey; and Enver Bey, the popular military leader.)

The general opinion may be summarized in a strong editorial which appeared recently in the *Yeni Gazetta* (New Journal):

No state can afford to base its future upon the desire of any part of its people. The Ottoman Government and nation knows no section with regard to Crete. There is only one opinion. The Turk will not hesitate to go to war even though such war extend outside the Balkans and into Europe generally. If the four protecting powers, after withdrawing their troops from the island, forbid its occupation by Turkish forces and permit its annexation to Greece, Turkey, which these powers suspect today to be looking favorably toward Germany and Austria, will actually throw herself into the arms of these powers. We have every confidence, however, that the rights of Ottoman sovereignty will be respected.

A number of the Turkish journals use the Cretan question as an occasion for commenting on the Turkish foreign policy generally. The *Yeni Gazetta* insists that Europe will have to treat constitutional Turkey in a much different manner from that in which it negotiated with the Hamidian régime. "Europe must see now that her conduct toward us will have to harmonize with the dignity of Ottoman sovereignty and constitutional government," says this journal, at the conclusion of a trenchant editorial.

MARQUIS KATSURA, PREMIER OF JAPAN.

ONE of the most important political issues in Japan, which brought about the downfall of the Saionji ministry and installed in its place the present Katsura cabinet, was that of the military retrenchment. Marquis Katsura was called to power upon the understanding that he would attempt to put an end to the policy of military expansion in response to the popular desire. A character sketch of a statesman intrusted with such a ponderous task may prove interesting. A recent issue of the *Taiyo* (Tokio) contains an intimate delineation of Marquis Katsura. We are told that the Japanese premier

is an unusually resourceful statesman. He is not brilliant, to be sure, but his sound judgment and his power of cool reasoning enable him to read the signs of the times and adopt a policy which he considers best suited to the needs of the time. A man of strong convictions, he at times displays prejudice, and yet his breadth of view and his clearness of vision make it possible for him to survey the political field from a commanding position and formulate his policy after general modern tendencies. Without doubt he has his own principles and his own views, but at the same time he is adroit and versatile, and does not hesitate to renounce his old views in order to adopt a new policy once he is convinced of the advisability of doing so. He possesses both talent and ability, and may well rank among the greatest men the Meiji era has produced. . . . Marquis Katsura is not a theorist,—he is practical through and through. He does not seek empty glory by holding out before the public elaborate and dazzling programs, but confines his plans within the bounds of his ability.

The article is the more interesting because it describes Marquis Katsura in comparison with other veteran statesmen of Japan. One of the most important qualities for a political leader, the writer says, is that of commanding the respect of his followers. Some leaders attain this end by instilling in the minds of their followers a feeling of awe, others by fostering in them a sense of love and gratitude. It is the latter sort of leadership which the writer finds in Marquis Katsura.

In this respect the Marquis is an abler leader than Prince Ito or Count Okuma, and is the equal of Marquis Saionji. Saionji's secret of leadership lies in his intellectual capacity and lovable personality, Okuma's in brilliant speech and high aspiration, Ito's in his long successful career and consequent reputation. As for Katsura, he leads his followers by subtle diplomacy, in which he excels all his colleagues, and his diplomacy is the sort that makes his followers regard him with a sense of affection. If we were to seek among the present-day statesmen a leader of Katsura's type, Prince Yamagata is,



MARQUIS KATSURA, AGAIN PREMIER OF JAPAN.

perhaps, that statesman. In fact, Yamagata was Katsura's master in statesmanship, and the political group of which Katsura is the leader was originally formed by Yamagata.

It must be noted that Katsura's political group is not a political party in the modern sense of the term. As the writer observes, Katsura has always stood aloof from political parties, or at most assumed an impartial attitude toward them. In fact, the foundation of his influence is in the bureaucracy, and his political group is composed of officials. In this respect he is radically different from Marquis Saionji, leader of the Liberal party, or Count Okuma, leader of the Progressive party.

Count Okuma is noted for his strong convictions, yet these have of late wavered more than once; Prince Ito's convictions have already ceased to deserve the name,—they have become arrogance; Marquis Saionji's are convictions that lack constancy; it is in Marquis Katsura that we find a statesman who is possessed of convictions, in the real sense of the word.

PORTO RICO UNDER THE AMERICAN FLAG.

ONE of the most striking examples of the difference between medievalism and modernism in administration of commercial affairs is revealed in the following comparisons of official data, 1908, just issued from the Bureau of Statistics, Department of Commerce and Labor:

PORTO RICO.—Exports to United States, 1901, \$5,641,137; 1908, \$25,891,261. Imports from United States, 1901, \$6,965,408; 1908, \$22,677,376.

Many indications, there are, too, in other directions, of Porto Rican progress under modern conditions. Dr. Lyman Abbott, writing in the *Outlook* on Porto Rican conditions as he found them, says:

That the islanders are in a more prosperous condition than they have ever been under Spanish rule was the testimony of everyone with whom I talked; there was not a single exception. I heard of one pessimistic conservative who lamented the good old days, but I heard only of one, and he was not regarded seriously by my informant. The wholesale dealer whose trade had been lessened because retailers now buy directly from the United States, the coffee-planter whose profits had been diminished by the Spanish tax imposed on coffee imports into Spain, the Spaniard whose patriotism led him naturally to regret the days of Spanish rule, all agreed that the island was much better off than it had ever been before. The old-time sugar mills have been supplanted by those of newer and better construction, one of them being said to be the largest mill in the world. The one monthly Spanish steamer has been replaced by fourteen monthly American steamers. In some

agricultural sections land has risen in value from ten to one hundred dollars an acre; in the vicinity of San Juan the increase has been much greater; nowhere have land values fallen. Wages have generally increased. If there has been any decrease in the coffee districts, it has, I judge, been more than made up by the increased wages paid by American tobacco-growers.

Dr. Abbott spent some weeks on the island in gathering material for his article which tells, at first hand, many important facts bearing directly upon present political, social, and general conditions. The improvements in roads and along other vital lines are thus described:

Roads have been built in every part of the island, so that now there is no township that has not a good automobile road to the sea, and in a few years all the towns will be similarly connected with each other. Bridges are gradually taking the place of fords and ferries, which rains not infrequently make unusable. Wherever the road has gone the cost of transportation has been materially decreased, in one specific instance from a former charge of a dollar a hundredweight to twenty-five cents or less. Along these roads civilization finds its way, so that, as one observant resident informed me, a year after a road is opened anyone can see the improvement in sanitary conditions, bodily health, character and quality of clothing, and largeness and cheerfulness of life. Every town has its graded schools, with school buildings which, architecturally, well serve as a suggestion for some of our town school boards; and rural, or as we should say, distant schools are being rapidly multiplied throughout the country, while provision for teachers to carry on the work of



ROAD CONSTRUCTION MAP OF PORTO RICO AFTER ELEVEN YEARS OF AMERICAN RULE.



THE NEW CAPITOL AT SAN JUAN, PORTO RICO.

(Designed by Frank E. Perkins.)

education is made by a well-housed and well-organized normal school.

Referring to the prevention and cure of a prevailing disease under the old régime, the writer remarks:

An army surgeon, Dr. B. K. Ashford, has discovered not only the cause of the anæmia which was the scurvy of the islanders and which previous authorities had erroneously attributed to insufficient food, but also a cure for it. Two hundred and fifty thousand cases have been successfully treated, and under the new law, if I understand its terms aright, every municipality will be provided with a hospital with some means of local treatment for the sufferers, and every school will be required to give some instruction respecting sanitary habits necessary to stamp out this disease effectually and finally. An engineer from the Rocky Mountains has been brought to the island, and, under his supervision, aided by a corps of American engineers, surveys are being conducted and plans perfected for an American irrigation scheme, which promises to relieve the sugar lands on the southern side of the island from the periodic droughts with which sugar cultivation has now to contend. And the reader should remember, what I think the Porto Rican sometimes forgets, that the expense of building these roads, of this medical service, of this irrigation plant, and for the most part of these schools, is paid out of the federal, not out of the local, taxes.

Among other lines of inquiry during his brief visit to the island, Dr. Abbott found time to look into political conditions. At his request the Speaker of the Porto Rico House of Delegates drew up and presented

him with the following interesting declaration or affirmation regarding the Porto Rico views of needed political reforms:

Reforms which could be embodied in the "Organic Law of Porto Rico" to satisfy the just aspirations of our people. In this aim it would be indispensable: (1) To separate the legislative and executive powers, abolishing the Executive Council, wherever it confounds both powers. (2) To constitute the legislative Assembly of two Chambers: one, the Chamber of Delegates in the same form in which it exists to-day; the other, the Senate of Porto Rico. The Senate could be composed of twenty-one members, three for each one of the seven districts in which the island is actually divided, or may be divided. Both bodies should be chosen by popular election. (3) The chiefs of department should be nominated by the Governor with the advice and consent of the Senate of Porto Rico, the Governor being named as he is to-day by the President, with the advice and consent of the Senate of the United States.

The writer, in his observations on this document, based on opinions of prominent people on the island, observes:

In my judgment,—and it is founded on a fairly wide and, I think, unprejudiced inquiry,—the Porto Ricans make no objection to anything which the insular government has done or left undone. Their objections are solely to the method in which the government is organized and to the degree of control still exercised over insular affairs by the United States Government. These objections are based on the desire either to control the public expenditures, to hold the public offices, or to have exclusive control of public affairs.

NOISELESS WAR: HIRAM PERCY MAXIM AND HIS GUN-REPORT SILENCER.

WATCH the play of expression of a man accustomed to handling a gun; he knows it to be the "noisiest thing of its size on the face of the earth." When the pulling of the trigger of a rifle equipped with a silencer is followed by nothing louder than the snap of the firing mechanism he is apt both to look and feel foolish, for the thing is so totally unexpected. An explanation of the simple mechanism that accomplishes this marvelous result appears in the *Technical World Magazine* of Chicago. The writer has still other wonders to unfold.

Now unscrew the silencer from the muzzle of the gun, hold a lighted match at one end and tell him to blow it out by blowing through the straight, open bore of that six-inch cylinder of steel, and he will look still more foolish, for he can't even make the match flicker. And the most irritating thing about it is to find results so wonderful accomplished by means so simple.

All there is of the silencer is a steel cylinder $6\frac{3}{8}$ inches long by 1 5-16 inches in diameter and weighing 12 ounces for the Springfield rifle. In the muzzle end of the cylinder is an expansion chamber. Beyond this there are eleven spiral convex vanes or disks with the outer edges turned back to form a sort of cup and having a hole a trifle larger than the bore of

lower velocity causes the characteristic snort of the locomotive.

The instant the powder gases have pushed the bullet out of the muzzle of the gun they have done all they can do and are of no further use, but on the contrary a nuisance to be gotten rid of if possible. The outer edge of this enlarged column of gases is caught by the first of the spiral vanes, and this starts the periphery of the column to whirling very rapidly on to the next disk. The eccentric motion due to the spiral vane being off center causes the leading portion of gas to cut a slice at right angles off that part of the pencil of gas which is trying to follow the bore, so that the mass reaches the space between the next two vanes with diminished velocity. More and more of the column of gas is cut off and set to swirling and expanding until its energy is so far spent that it is no longer capable of causing a racket as it pours tamely out of the silencer. There is nothing to wear or get out of order. Neither is any change required in any gun to adapt it to the silencer other than cutting a short screw thread on the muzzle. There is no interference with the shooting qualities of the gun. Neither is it possible to choke it with gases by continuous rapid firing, for the experiment of emptying a magazine as fast as the gun could be fired has been repeatedly tried with no other effect than the heating of the silencer.

The explanation of this invention is accompanied in the *Technical World Magazine* by a sketch of the achievements of the now famous family of the inventor, Hiram Percy Maxim. This family might well have been selected by Sir Francis Galton as an instance to prove his theory of hereditary greatness. Isaac Maxim, his grandfather, invented several improvements in firearms; his father, Sir Hiram Stevens Maxim, ex-American citizen, turned British subject, famed throughout the world for the invention of the machine gun, smokeless powders, and Cordite; Hudson Maxim, the uncle, inventor of Maximite, another high explosive, a torpedo, fuses, smokeless powders, and other inventions. Last in the list comes the present Hiram Percy Maxim, who has recently turned his attention from perfecting the automobile to the invention of the gun-report silencer.

The effect of the silencer on the noise of discharge was tested by an elaborate sound-recording apparatus. The noise produced by the discharge of a service rifle was equal to that caused by clapping the hands. In other words, the silencer eliminated 97 per cent. of the sound of discharge. For smaller guns it is still more effective, there being absolutely nothing to be



THE SPIRAL VANES OF THE SILENCER.

the gun a little to one side of the center, for the silencer is mounted off center so that the greater part of its diameter hangs below the top of the barrel out of the line of sight. The silencer is screwed on to the muzzle of the gun by means of interrupted threads so that it can be attached and detached by a quarter turn. If the man who is using the gun wants to prepare to receive a charge he can take off the silencer and fix his bayonet in about four seconds.

The principle on which the silencer is based is that of centrifugal force, or the property possessed by rapidly rotating bodies of flying out from the center. When a rifle equipped with it is fired the bullet passes through the slightly larger bore of the silencer without any loss of velocity, accuracy, or penetration.

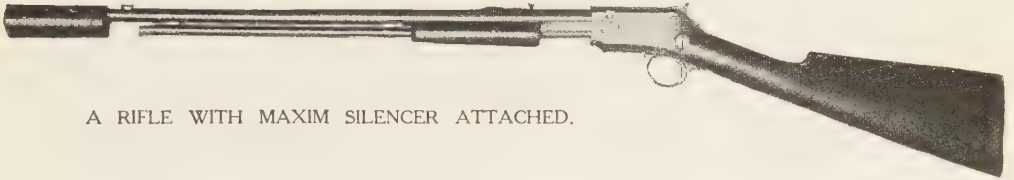
The report of the rifle is due to the sudden liberation of gases upon the base of the bullet leaving the gun. The gases rushing out expand into mushroom form, their impact upon the air causing the sound of a blow, exactly as the column of steam leaving the smokestack at much

heard but the click of the firing mechanism of a .22 caliber target rifle.

The largest size made at present is for the .405 rifle. Ex-President Roosevelt took one of these and one for a .30-.40 rifle on his African expedition. But the inventor hopes soon to have a silencer for field guns ready for use, after which he will devote his attention to silencing ten and twelve-inch guns; for he aims at nothing less than rendering future wars noiseless.

The most obvious and immediate effects of this invention seem to point to the greater efficiency of "the man behind the gun" as a unit in coming warfare. Not only is the average civilian "gun shy"; seasoned sol-

Noiseless war would seem to present the need of an entirely new science of the art of "killing without getting killed." An ambush without smoke or noise to betray its location to its victims might otherwise prove simply assassination on a large scale. Masked batteries would indeed be masked in fact as well as name, "to mow down regiments at their leisure, diverted meanwhile by the sight of the enemy training their guns on every spot but the right one in fruitless efforts to find their unseen foes." A night attack spared the terrors of the awakening crash of thundering volleys would but have added the



A RIFLE WITH MAXIM SILENCER ATTACHED.

diers often wear ear protectors or stuff cotton in their ears, while many a man draws a pension because of injury to his hearing. The silencer also, owing to the pressure of the escaping gases on its spiral vanes, largely neutralizes the recoil. With noise and kick eliminated the average boy would be able to handle a gun as effectively as a man. The reverse might almost be said to be the rule at present. The increased value of cavalry would of course be obvious. The silencer also eliminates the flash, which by night so clearly betrays the whereabouts of the marksman.

terrible uncertainty of a silent invisible foe. A pitched battle with noiseless guns,—imagination fails to supply the details of the picture.

Many as are the problems which will be presented for the military experts to solve, there is but yet presented, however, the one fact that the silencer does silence the rifle to which it is applied, and that;

the advantages from a military standpoint are so numerous that they will simply compel recognition. The work of fitting them upon the world's armament of eighteen million rifles may be expected to begin as soon as the world can raise the money to pay for them.

LESSONS FROM EUROPE IN CITY PLANNING.

AT the Conference on City Planning, held at Washington, D. C., in May last, an address was delivered by Prof. Frederick Law Olmsted, which is substantially reproduced in *The Survey* for July 3. Professor Olmsted spent three months last winter in Europe studying the planning of cities, with the result that he realizes "what a deal of light can be thrown upon American city problems by a study of European work, and how much we can learn from their mistakes as well as from their many successes." His travels extended as far as Constantinople, of which he says that "the most elementary kind of city planning" is strikingly absent from its street plan, "wide areas being cov-

ered with a chaotic complex of undifferentiated wriggling alleys leading nowhere."

City planning ordinarily aims at making new streets connect with older ones so as to afford continuous lines of travel; and, further, it seeks to make the streets wide enough to avoid congestion of traffic. This, says Professor Olmsted, is apt to lead to "a mechanically standardized arrangement of streets and blocks," with "uniform straight streets covering the whole or most of the town, which is more characteristic of American cities than of any other in the world." The main defect of this standardizing process is "the inevitable concentration of street traffic upon a limited number of thorough-



CITY PLANNING ADAPTED TO IRREGULAR TOPOGRAPHY.

(District building regulations enforce detached houses with gardens and prevent obstruction of view by buildings on left-hand side of lower street.)

fares," and, unless this contingency is provided for, "there is danger of serious congestion and inconvenience."

For more than half a century, especially in Germany and France, "the provision of a liberal number of exceptionally broad thoroughfares, from a hundred feet to a hundred yards or so in width, has been a systematic feature of city extension plans." Professor Olmsted thus traces the evolution of the boulevard:

As the common name of "boulevard" implies, these broad thoroughfares originated in the opportunities which are repeatedly presented during the expansion of fortified cities for so utilizing the sites of the older and outgrown military defenses, technically known as boulevards or bulwarks. But the utility and popularity of these circumferential boulevards early led to a demand for similar thoroughfares running in and out of town on radial lines, where danger of traffic congestion is obviously much greater than on circumferential lines; and they came to be a regular feature of progressive city planning on the continent of Europe during the latter half of the nineteenth century. These boulevards are not in most cases primarily pleasure drives, as is usually implied of a so-called boulevard in America, but are used by street railways and all kinds of street traffic, heavy and light, the trees and decorative features being a mere incident, though an important and a highly appreciated incident of this general utility.

The absence of fortified cities in England and

America during the period of most active city growth and the consequent absence of the peculiar opportunities for forming successive ring-boulevards as popular object-lessons in what a really liberal thoroughfare can be, have probably had as much to do with the deficiency of such thoroughfares in our street extension plans as the individualistic and decentralized character of Anglo-Saxon democracy.

Although many such boulevards have come into existence, it is only within the past twenty years that the other unremedied objections to the standardized plan have been fully realized. Professor Olmsted quotes a speech delivered by the Prussian minister of finance in 1892 which "marks a recognition of the fact that the ultimate purpose of city planning is not to provide facilities for certain kinds of transportation or to obtain certain architectural effects but is to direct the physical development of the city, by every means of control within the power of the municipality, in such a manner that the ordinary citizen will be able to live and labor under conditions as favorable to health, happiness, and productive efficiency as his means will permit." In Germany a city plan includes not only the surveyor's lay-out of streets but building regulations, health ordinances, police rules, etc. Section 18 of the Saxon law directs that in the preparation of



A NEW "ONE-SIDED" STREET ON A STEEP HILLSIDE.

(District building regulations permit no buildings on down-hill side to obstruct the view.)

building plans due regard must be had to the following matters:

To the claims of security from fire, of the public traffic which is to be expected, and of health; to a suitable supply of drainage; to the position and development of the place, and to the need for dwellings corresponding to the local conditions; and also to ensuring that streets and squares shall not be disfigured.

Among the points to which special attention is to be paid are:

The width of the streets is to be decided by the requirements of local traffic . . . care must be taken to provide short and convenient connections between streets and with the chief centers of traffic . . . open spaces and public shrubberies must be so arranged in respect of size, position, and number as to be useful in relation both to convenience of traffic and to general welfare . . . sites for churches and school buildings, as well as public playgrounds and recreation grounds, must be provided in sufficient number . . . front gardens, except when they are provided only in view of a future widening of the street, must have a depth of at least fifteen feet . . . in no case may the back-buildings of a street form a continuous row.

Both in Germany and in Switzerland many towns and cities are purchasing outlying lands with a view to future development. A notable instance of this is Ulm in Württemberg, which in 1901 "owned more than three-fifths of the building land within the town and 2926 acres outside the town

boundaries, and had made enough profit out of its operations to pay for large expenditures on schools, street improvements," etc.

Among the physical results of the German system of city planning Professor Olmsted enumerates:

First, a reasonably good provision of main thoroughfares, well planned and well equipped.

Second, an increasingly liberal and equitable distribution of small parks and playgrounds, as well as numerous small interesting squares.

Third, a good distribution of excellent public building sites, and on many of them some very interesting public buildings.

Fourth, very notable facilities for commercial and manufacturing districts in connection with water-fronts and railways. When the city plan lays out a district with a special view to manufacture, it does not just cut it up into the standard streets and blocks and then leave the railways, the manufacturers and teamsters to struggle with the transportation problem, but begins by laying out the necessary rights-of-way for the railroad facilities, and provides long rows of factory sites, with railroad sidings on one side and streets on the other.

Fifth, development of the newer districts in a less crowded and much more homogeneous manner than in the past.

Here in America, says Professor Olmsted, we seem to go on complacently perpetuating our old mistakes long after we have recognized them, preparing over again in our suburbs without material variation the same conditions that have given rise to results we deplore in the older parts of our cities.

WILL THE NEWSPAPERS BRING ON A EUROPEAN WAR?

MAX VON BRANDT, who has occupied a number of important posts in the diplomatic service of Germany, and is the author of works on the Far East, contributes a suggestive article to a recent issue of the *Deutsche Revue*. In view of the agitation which is steadily kept up by the bellicose press of different European countries, and especially in view of the dread specter of war between England and Germany, which will not be laid, Herr Brandt's warning advice seems particularly opportune. He begins with a quotation from an address delivered by Prince Bülow in the Reichstag in March last:

The idea that peace is jeopardized by sovereigns or ministers, by the ambition of monarchs or by the intrigues of ministers and governments, not only does not correspond with the real facts, but is in complete contradiction to the actual circumstances. Most of the wars which the world has witnessed in the course of the last decades were not brought about by princely ambition or ministerial machinations, but by the passionate excitement of public opinion, which, through press and parliament, sweeps the executive along with it. If it should come to a war once more, which Heaven forbid, it will have been caused by those Powers of Acheron which are more readily inflamed to-day than formerly.

Herr Brandt then goes on to say that if, in spite of the hearty applause which greeted this declaration of the Chancellor, some of his hearers still had faint doubts as to the justice of his conception, they must have been dispelled by the conduct of a great part of the English, French, and Russian press after the peaceful solution of the Balkan crisis. Without entering into the origin and course of this crisis, it may be well to make a brief

mention of its conclusion. After the more or less unsuccessful efforts of various countries the solution was accomplished by the acceptance, on the part of the Powers, of Germany's proposal to change Article 25 of the Berlin Treaty. Germany's merit, therefore, consists in having found the formula, sought by all or most of the nations, which made a peaceful, though perhaps only a temporary, adjustment of existing differences possible.

To any one with simple sound sense it must have seemed a creditable achievement to have warded off war, without doing injury to the real interests of any nation concerned; but a portion of the press,—in short, all the anti-German press,—of some countries could not refrain from exhibiting their anger at the bloodless outcome by spreading the rumor that Germany forced Russia's compliance by the threat of a war. The *Russ* of St. Petersburg, indeed, had exact knowledge that the 1st and 2d Army Corps were mobilized on the Russian frontier and the *Temps*, of Paris, learned that an ultimatum of Emperor William had compelled Russia's acquiescence; while the *Times*, of London, with a pen dipped in gall, wrote article upon article to show that Germany's aim was to attain the leadership of Europe,—acting in this instance against Russia, incapable of resistance, as it had acted in the Morocco affair against France, which was equally unprepared for war. . . . The fear of the German fleet and of a German invasion serves them as an aid to this end; and if it is exploited by them in a way resorted to, in the case of all such reforms, in countries with a parliamentary government or control, the anti-German press goes beyond that in order to envenom the situation. This is, of course, most regrettable, but the hope must not be abandoned that in England a calmer consideration of the actual facts will lead to a calmer judgment also regarding them.

As things are now, continues the German



AS IT APPEARS TO FRANCE, ENGLAND, AND RUSSIA.



AS GERMANY, AUSTRIA, AND ITALY SEE IT.

THE NEWSPAPER AS THE INTERNATIONAL CINEMATOGRAPH

From *Wahre Jacob* (Stuttgart).

writer, the Panslavist press in Russia and other countries, as well as the French and, still more, the English baiting journals, do their utmost to represent the situation in Europe as most unfavorable, and, in fact, help to make it worse by their agitation. Russia is said to meditate upon getting satisfaction, Servia upon revenge; Austria to be dissatisfied with the kind of support given her by Germany, and Turkey, too, discontented with the agreement into which it was forced with Austria-Hungary and Bosnia.

That in certain circles of the people of those countries such sentiments may prevail cannot be disputed, but the majority of the intelligent must have felt it to be a deliverance when they heard the official news from St. Petersburg that Russia was ready to agree to the Austro-Hungarian proposal.

Herr Brandt concludes in these words:

It is not doing the press an injustice to call attention to the dangers created for the community by the conduct of some of its organs. It lacks in many ways the restraint which a feeling of his responsibility imposes upon the professional diplomat, who to-day, indeed, has little to do but to observe, report, and to carry out, with more or less skill, the commissions with which he is charged. There is doubtless something intoxicating and enticing for the

owner of one or more great journals in the consciousness that he not only influences public opinion but may often even create it, and thus bear no mean share in shaping the course of history; but it must not be forgotten how injurious the influence exerted by such a power can be if it does not bring to bear other qualities that act in the way of counterpoise and precaution. But these are the qualities which the baiting journals particularly lack. It would be the place of the cabinets to furnish the remedy here, which can be obtained in no other way. The time is past when the records of events remained buried in the archives until, after the lapse of centuries, some curious scholar dragged them to the light; that which happens to-day very soon becomes for the most part the possession of the public, if not in its entirety, at any rate in a shape that leaves no possible doubt as to the intentions and actions of the Powers concerned. Would it not, under existing circumstances, be much simpler to take from under the "Acherontic Powers" the ground upon which feed their curiosity, their malevolence, and their craving for the new, by having the cabinets inform the world of what has happened, instead of allowing those not always friendly Powers days and weeks and often even a longer time to breed their baneful spores and bacilli, whose traces can frequently not be destroyed for decades? To do this would, of course, require an agreement of the executive Powers such as is rarely met with, but the attempt might at any rate be made with advantage to the world at large.

WOMAN'S EMANCIPATION AND THE FUTURE OF BRITAIN.

ON the woman question arguments are usually based on the probable results of emancipation to women themselves, not to the country in which they live. Mr. Arnold White, in the English paper *Black and White*, deals with the problem in its relation to the future of Britain. He calls attention to a fact that is frequently overlooked,—namely, that "woman's discontent with poverty and monotony, her desire for the wine of life, and the mystery of her passion for becoming dress" are not new. He also notes that the movement to confer political power on woman is coincident with a long period of peace, and that it usually dies down on the arrival of war.

The stir made by the publication of Mary Wollstonecraft's book was soon forgotten in the clash of arms between France and England. When it was revived sixty years after by John Stuart Mill, the movement promptly collapsed on the outbreak of the Franco-German War, and was not revived until the people had again forgotten the condition of peace-preparation by

one sex to murder and willingness to be murdered for the preservation of motherhood.

Mr. White very happily sums up the situation in a single sentence: "Of all the elements in the solution of the woman problem the economic factor is the most important, the sexual the most intractable." The main trouble is that the one factor is frequently involved in the other. Take the view, for instance, of women as breadwinners. The reason advanced by women, their economic independence, is "the exact reason why the vote is likely to be withheld."

The competition of men and women in the same spheres of employment creates sex rivalry. When two average people want the same thing it is unreasonable to expect either of them to part with the possession of power or to invest a rival with the means of extorting better terms. Since man is more selfish than woman, man is less likely to enfranchise woman than if the case were reversed.

The sexual factor renders it "impossible in the press or on the platform for men to

use the only argument that is valid against the grant of the political suffrage."

Were women sexless, the arguments for admitting them to political equality would be unanswerable. Their demand is a logical one, and there is no possible rejoinder to it that is not offensive to women, because the only reason for refusing it is that they are women. If the safety of the nation were to compel, as it now requires, the universal compulsory training and service of adult males, the common sense of the country would perceive the absurdity of allowing females who form the majority to determine policy which can be enforced only by the willingness of males to murder and be murdered. The maintenance of British power in India, which was won by the sword and is held by the sword, is inconceivable under woman's rule, especially if our rights were contested by a hungry, strong nation where men ruled by the stricken field, and woman's domain was the apartments devoted to feasting and repose.

With increasing taxation the struggle between the sexes is likely to grow more severe; and as male wage-earning electors can refuse it to their female rivals, the "marvel will be," in Mr. White's opinion, "not if women do not get the vote, but if they do."

Discussing the probability of a war with Germany, Mr. White says:

If the British are beaten and England becomes the conscript appendage of an European Power, the emancipation of woman, judging from the relation of the sexes in militant Germany, will be indefinitely postponed. Nietzsche's teaching that power is only for the strong saturates Teuton thought. If women, therefore, want independence as the Swiss wanted it, as the mutineers of the *Bounty*, or as the last escaped prisoner from Dartmoor wanted it, they must take it by force, by revolutionary resort to dynamite, poison, revolvers, and the knife. A few women will repeat the rôle of Judith and Charlotte Corday, but the physical disabilities of the sex will prevent them from winning the personal and proprietary independence which has been achieved by sons, slaves and servants. This . . . gives to all honest men a new outlook on women's questions, and imposes on them the duty of securing for them elementary justice where the present laws fall short of that standard. The only places where women have been admitted to political equality are countries that have never known, or even prepared for, a struggle for national existence.

Modern education has been "a priceless blessing to the multitude of unmarried women," and it has been accompanied by "a marked improvement in the physique of the women of the upper and middle classes of Britain." The "sickly type of beauty" has been superseded by one of "perfect health." The "canary bird type of woman, contented with her cage, and thankful for her portion

of seed and lump of sugar," has passed away. These changes toward a common-sense ideal are "likely to influence the national future."

Mr. White, premising that woman demands "equality in all because justice is withheld from her in part," says she will not get it; for "chivalry and franchise do not run in double harness." The chattel theory in regard to women is exploded; and changes have begun in the relation of the sexes which sooner or later must influence the marriage laws.

Still, elemental distinctions, not merely between men and women, but between good mothers and mothers who shirk their duties . . . are eternally unbridgable. The modern type of woman shows more independence, self-control, judgment, and versatility than her mother or her grandmother. She is more selfish, colder, harder, and more incredulous than the women of the past; but emotion and unreason, impulse and romance, the desire to attract, the charms of dress and insensibility to the rules of evidence, will probably continue to exercise predominant influence in the future of woman as in her past.

In the Britain of the future it is probable that some of the best endowed educational establishments in England which were founded for teaching "the children of free men," for teaching all children born in particular parishes, for granting the "maintenance, education, and training free of expense to poor children," will no longer be wholly monopolized by boys.

The incidence on women of the British marriage laws is undoubtedly cruel and unjust; and in England "divorce is only possible to Dives, although the wrongs of drunkenness and violence are most frequent in the small homes." In law the position of the unmarried girl, also, is inferior to that of her brother.

Over a great part of Europe the law of compulsory equal division of property after death has been a great advantage to women, and probably accounts for the vitality of the feminist movement on the Continent before it became a serious issue in our social life.

The law also directly and intentionally encourages the idea that the employment of male servants is a luxury properly subjected to taxation, while female servants are necessities of life and therefore immune from taxation. The duty on men servants was imposed during the series of wars with France and the United States, when it was deemed well to discourage the diversion of men from the army. The tax on male servants therefore raises in an interesting fashion the fundamental difference between the sexes. Hitherto the suffragists have not grappled with the question, but the time is at hand when both the disabilities and the faculties of women will receive their proper valuation in the scheme of national life.

HAS RUSSIA LOST THE SLAV LEADERSHIP?

RUSSIA, according to a brilliant English writer (Mr. R. E. C. Long) in the *Fortnightly Review*, is at present, so far as international politics are concerned, a cypher,—"nay, worse, a putrefying corpse." That Germany could at any moment take St. Petersburg, now undefended by a fleet, is only one item in his vision of the destruction of an Empire which contains more than 150,000,000 of human beings. Mr. Long, writing from Vienna, draws a vivid picture of the dominance of Germany, the collapse of the Triple *Entente*, and the loss by Russia of the leadership of the Slavonic world. The most important section of his essay is devoted to an exposition of the significance of the awakening of the Austrian Slavs to the fact that it is they, and not the Russians, who lead the Slavonic world. On this point Mr. Long says:

Were all the hundred and fifty million Slavs of Europe and Asia in the militant mood of the Austrian Czechs and Poles, we should have no more cause to fear German expansion. But the Slav races themselves are divided in ideals and aspirations. The Western Slavs,—the Poles, the Czechs, the Slovenians,—are all aggressive, Nationalist, and anti-German. Differing themselves in race, they are all anti-German. Their literature is Nationalist, militant, and inspired by political aims. Their literary and athletic unions are infinitely more alive than any Pan-German leagues. For some obscure reason the Austrian Slav missionaries this year woke up to the fact that Russia, except in numbers and extent of territory, could no longer claim to be the head of the Slav world, and that in all the essentials of moral vigor she stood last and alone. . . . What did most to open the eyes of the Austrian missionaries of the Pan-Slav faith was the renewed persecution of Poland. They saw that Nicholas II., not content with reviving all the old crimes and blunders which four years ago drove almost every race he rules into open rebellion, had chosen this inappropriate hour of diplomatic defeat to deprive himself of the support of the only conservative element in his empire.

In regard to his general contention, Mr. Long quotes the words of the Czech leader Dr. Kramarz:

"Much has changed in the past year for the worse. I do not speak of the annexation of Bosnia and Herzegovina, but of the aggravation of Russo-Polish relations caused by the renewed persecution of the Poles, a persecution which will ruin the work we have here begun."

Other members of the Austro-Slav deputation to Russia spoke even more plainly, and declared that the increasing misgovernment of the Czar's Empire was a fatal blow to all hopes of Slav union against Germanism.

Early in June Dr. Kramarz created a profound sensation by rising in the Reichsrath at Vienna and solemnly repudiating the historic Russophile policy of the Austrian Slavs. Russia, he said, was helpless, and that so far from being protector and patron of the Austrian Slavs she herself badly needed their protection and patronage. The annexation of Bosnia had destroyed his last hope. "For us Slavs there remains nothing more in the domain of foreign politics. Our dream of *rapprochement* with Russia was the dream of a child." Thereupon Dr. Kramarz developed an entirely new idea of the maternal relation of the vigorous and cultivated West Slavs to emasculated, misgoverned, and hopeless Russia. German industrialism was everywhere a Germanizing gospel:

In this fight the Russians, with their low culture and their bad government, are hopelessly outclassed. Their sole protectors are the West Slavs, the Czechs, and the Poles, who, being fairly civilized, are themselves making successful raids upon the German industrial monopoly which exists all over Central Europe. It is lucky that Russia, which is economically impotent, can find in the West a bulwark of Slavdom. In view of the industrial expansion of Germany it is a vital interest that Russia be protected.

Dr. Kramarz, addressing the Slavonic Society at Moscow, had laid down the doctrine that justice to Poland is the first thing needful. He said:

While Slovenians and Poles wage war upon Germans, they are the advanced posts of the Russian Empire, and defend it against the German attack. It is the Western Slavs who possess the most strength and the most resources to withstand this attack. They have more spirit than the Russians; they realize that they have to fight; they trust their powers; they understand themselves. Out of its Poles the Russian Government could, if it chose, make a similar advanced line of fortification against German aggression. But for that the first thing needed is justice to the population of Poland.

"Here," concludes Mr. Long, "from the mouth of a Slav, from the mouth of the ablest, most resolute, and most experienced of all Slav foes of the Teutonic *Kulturtraeger*, we have the truth about the racial struggle on the Continent of Europe, a struggle in which we [England], having resolved that it is our policy to oppose the exaggerated military and economic preponderance of Germany, are more interested than any other power."

COMMERCIAL RELATIONS OF SPAIN AND MEXICO.

THAT the time is ripe and the need great for the institution of a new and closer relationship between Spain and the largest of her former colonies, Mexico, is the deduction of a close student of the two nations, Señor Ramón Pérez Requeijo, professor in the Commercial High School of Santander, writing in *La España Moderna* for May.

Since the rupture of the closer ties of nation and colony he finds that "Spanish participation in Mexican affairs has diminished greatly. The predominant foreign influence to-day is North America, which perhaps even exceeds that of Spain in former times. Exports from Spain to Mexico for the year 1906-7 amount to but 3.41 per cent. of the total, while exports from Mexico to Spain amount to but 1.20 per cent. Of a total Mexican import trade of \$116,114,789.34, but \$3,963,993.15 belonged to Spain; and of a total export trade of \$124,004,005, but \$1,494,205.50."

An examination of the causes of this condition of affairs leads the writer into the analysis of abstruse economic questions underlying foreign trade. Nor does he hesitate to throw the blame upon Spain itself. Spaniards have never grasped the fundamental facts, brought out by Adam Smith, Stuart Mill, Andrew Carnegie, and other students of economic conditions, that the development of foreign trade depends, for its power of unfolding the wealth and resources of any nation, not alone upon exportation, but importation as well.

Hitherto questions of export have been of the most constant interest in the realm of commercial politics. Exportation is a theme which is never exhausted, even though it may have led to a complete exhaustion of all those remedies and schemes suggested to increase and enlarge it.

Former rivalries between different peoples have to-day taken on a new character, which consists of the effort of every nation to be sufficient unto itself,—that is to say, for every nation to attain an economic freedom similar to its political independence. In the words of Mr. Andrew Carnegie: "A strong home market is the best weapon for conquering foreign markets." The best and cheapest articles are those which will be preferred both at home and abroad.

Analyzing the present relationship between Spain and Mexico, which he divides into moral and commercial, Señor Requeijo finds that, although there is a noticeable tendency

to individualism in the modern Mexican state,—though they do at times glorify Cuauhetemoc, the last Aztec Emperor, above Hernán Cortéz,—still Spanish people and Spanish affairs do inspire the Mexicans with a lively interest. "At bottom they feel proud of being, with us, sons of that Spain of glorious history, which shone forth for centuries in the world of arms, and still shines in that of letters, arts, and sciences."

Turning to the conditions of commerce, he says:

Groups of foreigners in Mexico constitute an important social nucleus, because they are each consumers of the products of their respective nations. Our export to Mexico is small enough, but even that little is owing almost wholly to the Spaniards there resident. To develop the Mexican market demands the use of great capital, and although there are among the Spaniards in Mexico many who are able to dispose of large sums of money, and are endowed with the spirit of enterprise, they do not form a sufficient number to offset the influence of great groups of capitalists of other nations, particularly America. In fact, there is a large class of Spaniards there who, as the result of our constant immigration, arrive in Mexico unprovided with anything but their own excellent personalities, and who go there not to make a fortune, but simply to gain a living. This constitutes a grave danger,—because it infuses into the minds of the natives the belief that we Spaniards are poor livers, who only come to Mexican shores to seek what we have not,—riches.

Examining the list of Mexican imports for the year 1906-7, he finds that Spain takes first place in wine in barrels; \$690,000, as against France, \$283,000, and the United States, \$56,000; paper, mostly for cigarettes, \$124,000, as against Germany, \$18,000, out of a total of \$305,000. In wine in bottles Spain stands second with a total of \$208,000, as against France, \$278,000, out of a total of \$601,000. Spain also stands second in canned goods, boots and shoes, dried fruits, music, and books. In iron and steel, however, Spain drops to third place with \$109,000, as against the United States, \$1,290,000, and Germany, \$170,000, out of a total of \$1,673,000; and machinery of all kinds only \$59,000, as against the United States, \$10,070,000, and Germany, \$1,124,000, out of a total of \$13,130,000.

In cotton goods Spain had but \$336,000 out of a total of \$6,085,000; in woolen goods but \$82,000 out of a total of \$2,553,000; and

in silk but \$34,000 out of a total of \$1,289,494.

Exports from Mexico to Spain he finds to consist practically of but one article, "garbanzos," a kind of bean much prized by Spaniards. The value of this export was \$1,374,000, while the value of all exports combined was but \$1,494,000. Of a coffee export valued at \$3,618,000 Spain took but \$21,000, and of a tobacco export of \$1,194,000 but \$1800.

When it comes to the actual methods which should be pursued to increase the relations both moral and commercial between the two countries Señor Requeijo finds that "the first thing needed is to maintain a constant communication of ideas." . . . "The nucleus for this is already found in the Spanish Cathedral, one of the most beautiful buildings of Mexico City. This building is always open to Mexicans, so that representatives of both nations may meet there under conditions of perfect cordiality and freedom."

He further recommends a more frequent interchange between the two nations of men of science and literature; that there should be a greater plan and method in the selection of diplomatic representatives, and that the Spanish Academy should open a branch in Mexico for the purpose not only of preserving the purity of the language of each country, but of adopting at times into Spain the neologisms of the daughter nation.

It would be hopeless to attempt, however, an amelioration of tariff conditions between

the two nations. "The Mexican customs has but one tariff, which is applied equally to the goods of each and every nation." There is, however, need of a treaty of commerce and navigation, which, though designated in the treaty of peace of 1836, has not yet been brought about. The government should confine itself chiefly to a constant surveillance of public means of communication, and the publication of works of research on conditions of the market. For this purpose there should be appointed a series of commercial agents at the principal Mexican legations.

Private initiative must, however, be looked to for the largest part of any substantial betterment which may be brought about in the commercial relations of the two countries.

The first thing needed is for Spain to depend upon a production so well organized, and which shall attain to such a strength that the domination of the foreign market will be a consequence of the complete and natural domination of the home market. That is to say, Spanish producers must place themselves in a position of such power that they may compete in quality and cheapness with the products of other nations.

After this, it is necessary to organize the export trade on a basis of strong exporting houses. That is, the business of exportation should be created on a large scale, such as at present does not exist in Spain. There should be a supervisory board of exporters who would, by means of commission workers, travelers, and local representatives, study and understand the conditions of the local market of every foreign nation, suitable articles of export for each, the condition of prices, freights, and other expenses in each.

ARTIFICIAL COLD: ITS ECONOMIC AND INDUSTRIAL IMPORTANCE.

"COLD for sale!" "Delivered at your door!" would strike the eye strangely if seen among the advertisements in our daily newspapers; yet it seems not improbable that such announcements may within a very few years become as familiar as the "ads" of the ordinary iceman. M. Gabriel Eisenmenger, writing in *Industrie Moderne* (Paris) for February, says: "The day will come when cold, liquid air or liquid oxygen, will be sold as coal is sold in winter." This prophecy occurs in the concluding paragraph of an account of the first "*Congrès international du froid*," a congress on refrigeration, which was held in Paris in the fall of last year, and was attended by about three thousand spe-

cialists, including many of the leading savants of the day. The gathering is described as "one of the most important scientific manifestations to which Paris has ever extended its hospitality."

Comparatively few persons beyond those interested in it professionally or commercially realize the importance of refrigeration as a factor in the daily life of the community; and fewer still are aware of the immense possibilities of its development in the fields of medicine, biology, metallurgy, agriculture, as well as in the various industries. At the Paris congress the production of artificial cold was discussed in all its bearings "with the care and the scientific spirit which its

importance demanded." The many applications of which it is susceptible; the various scientific and industrial difficulties of which it appears to offer a solution; the legislative questions attending it,—all these received due attention. The Paris writer goes so far as to say that "the proceedings of the congress bid fair to open a new era which will contribute very largely to the wealth of every civilized country." Passing over the interesting observations of M. Eisenmenger with reference to the sources of cold and the discoveries of scientists in connection therewith, we extract from his article a few passages dealing with the various applications of refrigeration, which we think will be of interest.

REFRIGERATION AND FOOD.

It was natural that America should be largely cited with reference to the refrigeration of meats; and many members of the congress were doubtless astonished to learn that the United States possesses 6000 refrigerator cars, having a capacity of 1,200,000 tons; that the refrigerative process is applied to twelve milliard francs' worth of products in the same country annually; that her frigorific fleet numbers 187 ships, capable of transporting 12,000,000 of sheep; and that her cold-storage establishments are able to hold more than 240,000,000 kilograms (1 kilo = 2.20 pounds) of meat, one milliard of eggs, and more than 250,000,000 kilograms of fruit. England imports annually nearly three milliard francs' worth of refrigerated or frozen meat. The Argentine Republic, which in 1893 exported 1,300,000, almost centupled that number in 1903. . . . Russia's refrigerating establishments are insufficient; and a good cold-storage concern would make enormous profits.

A noteworthy fact brought out by one of the speakers at the congress was that the same degree of temperature is not suited to every kind of food.

Meats, eggs, butter, and fruits each need a different degree of temperature. Apples freeze at -0.5° C., while raisins will sustain a temperature of -3° . Further, meat simply cooled to -2° to -4° will keep several weeks, but that frozen (-9° to -12°) will keep for two years.

Another subject of discussion was the molds which appear on refrigerated meat which has been long in cold storage, and concerning which one of the members of the congress gave the results of experiments with samples that had been so preserved for six months and four years, respectively. Finally it was stated that meat from the United States, which had been simply refrigerated, arrived in Paris in such good condition that it fetched a price equal to that of French

meat, whereas the frozen carcasses from Argentina and Australia on their arrival in England were found to present a much less inviting appearance, and were sold at a smaller profit.

Thanks to the application of artificial cold, peaches and pears from California, bananas from Central America and the West Indies, apples from Canada and Australia, fish from the Baltic, and butter from Siberia all find a ready market in the British metropolis.

ARTIFICIAL COLD IN BREWING.

Till within the past few years beer was brewed in many countries in spring and autumn only, with varying chances of success, depending in certain stages of the process on the supply of ice. To quote M. Eisenmenger:

Good German beer acquired its bouquet, its clarity, and its limpidity from "low" fermentation of which the first stage, extending over a week, was effected in a temperature of 5° , whereas the second, four times as long, was accomplished in a cave maintained at a temperature of 8° or less below zero. Here, where ice abounded, the immense and cumbersome blocks often failed to satisfy the necessary requirements. To-day all this is changed. By the use of refrigerators the German method of manufacture can be carried out in any country; and from Christiania to the Cape practically every brewery of standing is provided with one of these machines.

ADAPTATION TO VARIOUS OTHER INDUSTRIES.

Reports were presented to the congress of the adaptation of artificial cold to various other industries. Mr. James Gayley, of Pittsburg, gave an account of its use in the manufacture of steel. A member from Holland described its employment in hastening the flowering of certain plants. The manufacture of smokeless powder and of certain kinds of matches, the extraction of paraffin, and the making of linoleum are among the many processes in which artificial cold is found as an auxiliary.

DELIVERY OF ARTIFICIAL COLD AT THE HOME.

Like gas, water, electricity, and heat, artificial cold can be distributed to the homes of the citizens. Professor von Linde, of Munich, addressed the congress on this novel application. At present the cost of installation seems to be somewhat prohibitive; but means will doubtless be found to cheapen the work, and at no distant time one may expect to see the markets, butchers' shops, restaurants, etc., participating in the obvious advantages of "cold air laid on."

THE NOVELTY CRAZE THE CURSE OF MODERN LETTERS.

IF Camille Mauclair speaks truly, in the interesting paper which he contributes to a recent issue of *La Revue* (Paris), there is a world crisis in full swing at the present moment, not only in Literature, but also in the Drama, in Painting, and in Music. And, he declares, it is by no means because of any lack of brains or ability that the commonplace prevails to-day in the realm of art-work, but wholly and solely, he implies, because every art-worker is doing his utmost to produce a "novelty." The idea of novelty has come to be confused with genius, in our modern haphazard way of using words, and since every worker wishes to be considered a genius, why, he does his best to be novel, with the positive and undeniable result that as he only succeeds in producing the "new old" he becomes an object of suspicion and,—failure. Says M. Mauclair:

A most singular, seductive, and dangerous ambition has seized upon the souls of our contemporaries, namely, the craving to produce the novel. The struggler after fame nowadays will be the creator of something novel, or nothing at all. He will be considered the disciple of no wight who preceded him, no matter how famous. He is prone to take offense at the mention that his work recalls that of artists dead and gone,—and just for the simple reason that he cares only for himself and his name, and nothing for the advancement of Art. Yet to the artist of other days, such a notion as searching for novelty would have been impossible. The idea or conception the old artist held, regarding his work, was a much more humble one. If he could "do well," he was satisfied. Naturally enough, some of them must have possessed the gift of originality; but their circumspection and modesty forbade their airing it. Art was the only interest they possessed, and to produce art-work their highest ambition. They were satisfied with the applause of a small circle. The praise of great crowds they never sought.

M. Mauclair ventures on the bold statement that all artistic evolution postulates the correctness of the following propositions, namely, first, that the really "novel" does not come spontaneously, is not improvised, in fact, but appears to be deduced as the result of a laborious series of secretly practiced efforts; secondly, that the "novel" is never recognized, understood, or appreciated until such times as the public has learned to understand the process by which the novelty-monger has managed to attract the public's attention. There are two important results

which must follow from these propositions, says M. Mauclair:

In the first place it is dangerous to attempt to be really novel, and in the second it is only false novelty, or what is "old new," that by imposing on the public really pays. There are artists who possess the quality of genius, and their lot is usually one of martyrdom. Not so, however, that of the average young man of to-day. He intends to fascinate and profit by it. He therefore strikes out a line in "new old." He does so simply because it is the easiest method of being thought "brilliant," and because, though he wishes to be "novel" at first, he has vague notions that a day will come when he will be in a position to "do good,"—that is, when he has the time. And he is driven to act so, just because he is living in an age of bluff and competition, when no man has the slightest intention of being deprived of a penny of the financial value of his artistry. And you will note, nowadays, that the artist does not work for himself or his art. He writes a story or paints a picture for such and such a magazine, or such and such an exposition, just as one writes a play or a rôle for a particular actress.

A strange condition of affairs artistic has sprung out of this determination to make all things subserve personal interest. Your toiler in artistry will perform the impossible to disguise the fact that his "new old" is really ancient. He will submit to personal ridicule, as proving a means to advertise the results of his labor whatever it may be. He will have himself "discussed," since silence is the thing he most fears. If it be said of a musician that he plays out of tune, do you imagine he cares? Not he! He is delighted to find himself talked about. "I am discussed," he cries, "therefore I am. I exist." M. Mauclair continues:

When one does not possess genius, but only talent, and is also unable to face a long apprenticeship, the seeker after "novelty" goes to some school which has already invented a formula. That the novelty-monger does not agree with the particular formula of the school matters not a little bit; but he would be, or have to be, a prodigiously clever man who could dispense with the support of a "school." With such support, he could, moreover, assure himself of assistance from certain of the critics,—a word which has really no present meaning, since the system of paid advertising has really destroyed criticism. In respect of its literary criticism France, for example, is really inferior to Belgium or Switzerland, in so far as the criticism is genuine. Modern criticism is divided partly among those who are hostile to novelty and those who think it is their function to "discover" novelty, and accordingly between the

pontiffs and the discoverers genuine and patient talent is throttled. The result is that nowadays honest and clever artists are no longer anxious on the score of criticism. They care not if their work shows signs of "influences" or lack of personality provided it be good. Even do we hear it said that the qualities of Dickens,

Balzac, and Dostoievski, which were only won through immense toil, are maudlin and worthless, and just because such qualities are terribly difficult to acquire. The spirit of "arrivism," or novelty-mongering, is killing modern art. It is always in a hurry. Real art never is in that condition.

LONGEVITY AS A FAMILY TRAIT.

A RELATION between long life in parents and a similar tendency of their children to achieve length of days is brought out by a comparison of genealogies, records of births and deaths, etc., published by Dr. Alfred Ploetz, of Munich, in the *Archiv für Rassen und Gesellschafts Biologie*.

There is a marked difference in the number of children who live longer than the first five years of life in families in which the mother lives only to the age of twenty-five years or less, and in families where the mother lives until eighty-six years of age, or more. Records concerning nearly 6000 children showed that in families where the mother died at the age of twenty-five or less nearly 38 per cent. of the children died during the first five years of life, 33 per cent. when the mother lived until between forty-six and fifty-five years of age, 30 per cent. when she lived to be from sixty-six to seventy-five, and 11 per cent., the lowest recorded, when she attained an age of eighty-six or more.

Length of life seems to be influenced by the father's age even more than by the mother's, for among 6000 children 46 per cent. did not live beyond the fifth year in families where the father died during his twenty-fifth year, or earlier; but when he lived longer the number of deaths at five years or under regularly diminished until the death-rate reached its lowest point, 15 per cent., in families where the father lived to be eighty-six or more.

The idea would at once occur to any one that young children, deprived of their mother's care, or perhaps undergoing many hardships through the loss of their father's protection, would naturally have less chance of living than others, and that this would account, to some degree, for the greater number of deaths among children who had lost either parent early in life. But unfavorable surroundings caused comparatively few of the deaths considered, and the difference is practically independent of such conditions,

for many of the records were taken from the lives of royal families where children would not suffer neglect even if they were bereft of parents, and the same relations appear here between the length of life in parents and children as among the civilians.

Apparently there is a relation between length of life in parents and children that is independent of any external conditions, but is really due to an inherent difference in individuals that is transmitted from one generation to another. This innate characteristic is the power of resistance against the hardships of the world about us, a characteristic affecting the rudiments of the child's constitution and due either to the parents' tendencies toward certain variations or to the inheritance from them of constitutional power.

Children whose parents die while still young may inherit a weak constitution and perhaps, also, a tendency toward early death; while children of long-lived parents may inherit a strong constitution as well as a tendency toward long life, just as the children of "intellectual parents may inherit a tendency toward special intellectual power." But the tendency toward either long or short duration of life is not transmitted as commonly as either bodily or mental characteristics.

The same records also show a similar relation between the length of life of the parents and the number of children in the family, the highest average of children occurring in families where the parents lived to the age of one hundred years, with regularly diminishing averages to correspond with earlier deaths of parents. Long-lived parents usually have higher constitutional power, which expresses itself in the greater number of progeny.

Apparently, under favorable conditions, it would be possible to acquire length of life as a family trait if that characteristic were fostered as carefully as the retaining of fortunes is in some families.

FINANCE AND BUSINESS.

NOTES ON APPLIED ECONOMICS OF THE MONTH.

SOME QUESTIONS FROM A FARMER.

A CALIFORNIA farmer recently wrote the REVIEW OF REVIEWS a questioning letter, with the apology that he had been a regular subscriber for fifteen years and had never before "exchanged the hoe for the honored quill,"—and that "once in one-seventh of a century did not seem to him too often."

His questions were answered in detail, and are significant enough to occupy some space in these columns, for they were on the subject of our national currency system. They went to the root of the matter. And it would be well for the country if every voter would inform himself on the same subject before the next session of Congress.

QUESTION No. 1.—"How can the Europeans get gold from America, when we, the Americans, are producing in greater quantity than they the stuff that buys the gold?"

Because America is developing faster than Europe, and because our production has not yet caught up with our development.

It is actually necessary for the United States to have an excess of exports over imports of something like half a billion dollars to "start even" with Europe on the foreign exchange race.

For many years the English, Germans, French, Dutch,—even citizens of small nations like Switzerland,—have been doing a large part of the new financing of America. How thoroughly we are still in Europe's debt is shown by the figures of the London *Statist*, which estimates the amount of British capital invested in American railroads alone for a period of less than a year,—July 1, 1908, to June 15, 1909,—at \$67,500,000.

In Amsterdam, a single group of banking houses holds securities of the Atchison Railroad to the tune of \$9,500,000. Here is some half a million dollars a year which must be sent back to Europe in return for bond coupons and so on. This is only one of many similar instances.

The other two great items are the money spent by American tourists abroad and the money taken abroad by European immigrants

returning home. Each of these items last year was figured at something like a hundred million dollars.

QUESTION No. 2.—"Why do you say that American banking is the 'financial tool of Europe'?"

American banking is very literally the tool of Europe. It is a case of united Europe stands, divided we fall. Every world power, with many of the smaller countries, recognizes the advantage of a central controlling bank. It is only in the United States that we find nearly 7000 national banks and nearly 15,000 "State banks," with miscellaneous institutions bringing the total up, to 25,000.

In the matter of note issue the difference is striking. A great institution like the Bank of France, for instance, not only controls the money market, but is *known* to control the money market. The mere fact that such a power exists holds financial strength. It prevents panics on the one hand and undue inflation on the other.

Such an institution raises the rate of discount,—meaning the relation between its own notes and the paper of other banks,—in hard times, but never to ridiculous rates as in this country.

Now contrast the position of the American national banks. Here are some 7000 different money-making institutions. Suppose any one of them, or any hundred, or any thousand of them, should cut down their note issues at a time like the present. They would simply see a portion of their profits going to the several thousand remaining banks.

Clearly, one of two things must change,—either human nature or the currency system of the United States,—if we are not to continue the "tool of Europe" financially.

QUESTION No. 3.—"How long has the unsatisfactory American currency system been in existence?"

Since February 25, 1863, when Abraham Lincoln's Secretary of the Treasury, Salmon P. Chase, devised what was an excellent war measure. United States Government bonds were selling in New York at only 88. Some-

thing had to be done to raise the Government's credit. In the second place, the notes issued by a bank in Bangor, Maine, might be very good, but how was a citizen of San Diego, Cal., to know it?

Mr. Chase killed two birds with one stone through his bill providing that only "national banks" could issue notes, and only after they had deposited certain Government bonds with the Treasury at Washington; but that under these conditions the United States would stand behind the notes in every portion of the country. Thus was made a "market" for United States Government bonds. Instead of yielding the purchaser 10 per cent., they now yield less than 2 per cent.—not on their value to investors, but on their necessity to the national banker if he wishes to "take out circulation," which is more profitable than lending his money directly.

And all the San Diego man has to do is to make sure that his note bears not only the name "National Bank of Bangor, Maine," but also the legend "Secured by United States bonds or other security." The Maine bank can fail a dozen times over,—the note is just as good.

The Chase system has served the country through nearly half a century of the greatest and quickest development in the history of any nation. But a more civilized system would serve us better at the present time.

SYSTEM IN MORTGAGE INVESTMENT.

A MORTGAGE on somebody's farm or office-building is the foundation type of American investment,—yet the type that is handled with less science by the average citizen than any other.

Just because there is no other form of laying out money profitably so dependent on local conditions, it has been felt that the advice of some local sage could alone determine whether a given farmer or store owner was a good man to lend money to on bond and mortgage or not.

The financial adviser at a distance, if consulted about a mortgage, will always reply that "your lawyer or banker" should know whether the risk is good.

This is all very well for the investor whose community boasts a reputable real-estate loan agency,—the kind that has been active for twenty-five or thirty or perhaps forty years,—with the record that "no customer has ever lost a dollar."

Where the investor must do some judging

for himself the experience of the great life insurance companies is very valuable. No more than common-sense and a common school education is needed to read and understand the four-page interrogatory which must be answered by the farmer who would borrow money from one of these companies. There must be told not only the use to which the borrower intends to put the money, but also his habits, his reputation in the community, the size of his family, and his record in previous activities.

Under such safeguards a single company, the Northwestern Mutual of Milwaukee, in a recent report showed more than \$2,900,000 outstanding on farm mortgages. About 5½ per cent. was earned on this sum. Iowa, Missouri, Illinois, Minnesota, and Ohio were the States represented.

Even a larger distribution, extending from Vermont to North Dakota, is shown by the mortgages of the National Life Insurance Company, Montpelier, Vt., which had more than \$14,000,000 outstanding,—40 per cent. of its total investment.

The company's own inspectors placed a value of more than three times the amount loaned upon the farms in question. With such conservative policy no wonder this particular company states in its report that "this class of investments has been found very profitable, satisfactory, and safe."

One firm of long experience has a rule that no loan should be made above one-half its own valuation of the property in question, except that in cities of 300,000 and over three-fifths may be loaned, and in New York City two-thirds. The investor with less than \$1000 is debarred from the standard type of farm mortgage. Even when this pays 6 or 7 per cent., the legal expenses, especially in the case of a short-term mortgage, are disproportionate. But there are plans by which the small savings may share in this rock-bottom form of investment. There are the big companies that guarantee titles, which sell certificates against city real estate mortgages, as low as \$500, and yielding as high as 4½ per cent. Sometimes such certificates may be had on farm mortgages to yield as high as 5 per cent.

There is a company which has met with success in applying an ingenious part ownership plan to five-year bonds issued against large city buildings, mostly in the West and Northwest. Several companies operating in real estate put up mortgages as security against their own bonds or direct obligations.

Thus the default by any single mortgagee involves no unnecessary inconvenience to the investor, since the central company is liable for all debts.

Meanwhile, the old-fashioned "straight" mortgage is dealt in actively by hundreds of agents throughout the country. If the investor becomes allied with a firm of proper credentials he can well follow the example of the Vermont insurance company and keep some two-fifths of his principal in this fundamental type of American investment,— "close to the land."

The methods of the loan agents of to-day are improving. In the '90s, as every one remembers, the farm-mortgage business in the Middle West was overdone. Anyone who owned a certain number of acres and improvements could get a loan from some "debenture company" into the treasury of which Eastern money was flowing. Nowadays competition is keener.

The loan agent who can build up a list of clients and hold them has got to go farther and find out what the borrower wants to do with the money, what is his personality, and what would happen should values lessen by the time the loan becomes due.

Finally, the "mortgage broker" who wants to last must retain his interest in his client even after his fees are paid. If the real estate is to be taken over, he must display energy in finding a purchaser at a fair price without loss of time.

THE MYSTERY OF BUSINESS FORESIGHT.

SOME occult faculty is widely credited to what is usually headlined as "High Finance." Certain men of wealth are found to have consistently, through one panic after another, sold out their speculative securities before the drop and bought them back after it. Certain great merchants are known to be among the first to clean out their stock and stop borrowing money before a tightening of our national currency and a raise in the loan rates. Certain bankers are known as good people to follow when they are found to be refusing to lend money on long time at a given rate,—and to favor the borrower for short-term.

"Inside information," or just plain "luck," is often cited as the basis for such success by bankers, merchants, and investors less happy in their choice. But there is a third factor, well worth every business man's attention,—the scrutiny given by the mighty

men of finance to the figures that underlie business conditions.

It is curious that Europe seems ahead of America in this respect, even as regards America itself. A firm which is in the business of collecting and analyzing the figures that show where we stand as regards gold exports, bank clearings, business failures, etc., each week and month, reports that more statistics are taken by the bankers of London, Amsterdam, and Paris than in the whole United States together. These bankers represent the owners of hundreds of millions invested in American securities. They and their clients have been accustomed in one form or another for a thousand years to the systematic study of fundamental business figures.

Even among the smaller banks in America one finds here and there some enterprising bookkeeper or statistician with a series of big cards strung together, on which he has penned column after column of the figures, showing deposits in the banks, loans of the banks, business failures, imports, exports, and so on. But outside of the larger firms it is rare to find the work attacked with a definite and uniform system and supervised and studied by the head of the firm. And thereby hangs many a failure,—ascribed to "bad judgment."

Examining the monthly table that the bureau above mentioned sends to subscribers one finds columns of figures, percentages, etc., usually monthly, for the past nine years. The tendency of each set is thus plain at a glance. A banker who reflects over these particular figures every month remarked that no single set of figures was entirely significant. There are always special conditions. When one gets past the first half-dozen sets, however, the possibilities for the future have narrowed considerably. And after a dozen, he has pretty nearly made up his mind.

For example: Here are the figures for three of the nine years under No. 17, "Gold Movements." The plain figures indicate an *import* of a certain amount of gold; the figures prefaced by the star, an *export*.

Month.	1907.	1908.	1909.
January	\$820,473	\$10,488,333	*\$4,445,173
February	2,202,808	879,536	*5,284,401
March	2,920,070	2,202,201	*16,090,814
April	2,754,683	*11,915,144	*2,988,887
May	*1,823,281	*23,457,208	*8,907,544
June	*21,706,798	*5,177,045	above normal
July	*4,067,584	*1,896,093	signifying
August	*1,373,107	*2,295,895	higher money
September ...	1,255,183	721,503	rates.
October	796,208	1,833,131	
November	62,959,702	57,912	
December	43,444,072	2,235,169	

It will be seen that during the summer of 1907 the exports were heavy; but that in the two final months more than \$100,000,000 was recovered. And every one of the first five months this year showed a big export,—“signifying higher money rates” to come.

THE SCIENCE OF “BUSINESS INVESTMENT.”

A LITTLE booklet called “Bank Investments,” recently issued, is worthy the study not only of bankers but of every business man who has ever been or may ever become a bond-buyer. It might indeed be entitled “The Science of Investing a Business Surplus in Bonds and Notes.”

The author is Mr. George Garr Henry, a well-known banker of New York and author on financial subjects. He makes first the distinction between commercial banking and investment banking. He points out that success in “the delicate and almost instinctive matters of credit” does not at all imply corresponding success in investing money in bonds. And this applies to the merchant, the trader, the farmer, and the executive in every line as well as to the banker. A man who controls himself and other people, and who thereby accumulates capital, may have given no time at all to the study of the proper investment of that capital and may see a precious lot of it slip through his hands.

What does the average prudent “business man” usually buy? Either sound bonds with unusually high yield, that are strongly recommended to him by some friend in the investment business, or else the very highest grade gild-edged savings bank railroad bonds; he feels there can be no question about these.

What happens? He needs money,—to hire a dozen more salesmen,—to build a wing on his factory,—to buy another farm,—and he offers some of his bonds. Then, if he has bought the first kind, he is only too apt to hear that they are perfectly good but inactive, and that he may have to accept a couple of points less than he paid.

Or, with his gilt-edged Union Pacific first 4s, or what not, he may find that no one doubts the quality of the bond,—that it can be sold instantly in San Francisco or Vienna,—but that whereas he paid a point *more* than par for it he must now take a point less. Another loss of \$200 on his ten bonds.

What is the trouble? Mr. Henry answers this question.

The market movements of all negotiable securities are controlled by two influences, sometimes acting in opposition to each other and sometimes in concert. One of these influences is the loaning rate of free capital. The other is the general condition of business.

A low rate of interest or the likelihood of low rates has the effect of stimulating security prices. A high rate or the prospect of high rates has the effect of depressing them. Similarly, good business conditions or the promise of good conditions tend to advance security prices, because they indicate larger earnings and a stronger financial condition. Poor business conditions or an unpromising outlook have the reverse effect. The larger movements of security prices are always the resultant of the inter-action of these two forces.

Every now and then the two causes work together, as at the present time, when interest rates are low and business conditions are improving. A man who buys 4 per cent. savings bank bonds during the next few months can be as sure as any mortal can be of anything that his bonds will be lower after money rates advance. With such bonds there is no question of safety at all. The question is simply that of the money rate. Its rise will lessen demand for them.

The man who buys second and third grade securities now, however, especially those that have a good broad market, can expect them to maintain their price. Better business means better security behind the bonds. And the yield of from 5 to 6 per cent. is so much more than the money rate that an advance in the latter does not begin to act so soon.

What should the business man do? He should make sure in what investment period he finds himself. At the present time, for instance, he might well confine that portion of his surplus which is liable to a sudden cash call to short-term securities. He can find old issues of bonds which will fall due within two or three years, notes of cities, of railroads, and other corporations, soon coming due. Railroad equipment notes offer the largest margin of safety with the largest return just now.

Or any investment banker can point out railroad and industrial bonds of “middle class” which are still selling so low as to yield as much as 5 per cent. or more. Added prosperity for the corporations will mean added confidence in the bonds. Yet their yield is so high that the money rate will have to advance largely before it plays any part in their price.

THE WORK OF MAURICE HEWLETT.

BY G. W. HARRIS.

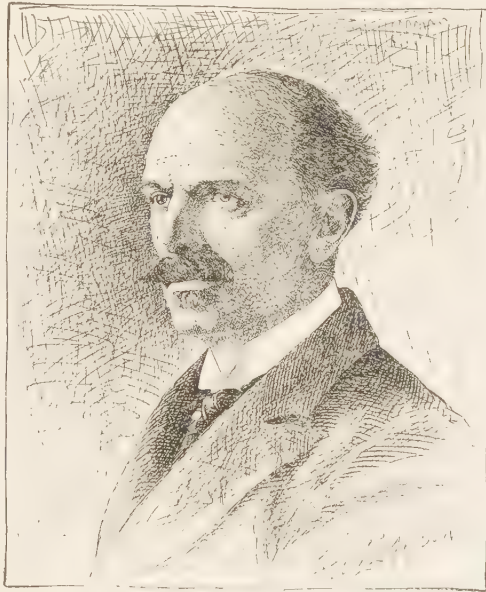
IN 1895, the year that brought us "The Amazing Marriage," the last of that long series of wonderful novels with which George Meredith enriched the world, a remarkable little book was published in London and New York, having for its title: "Earthwork Out of Tuscany,—Being Impressions and Translations of Maurice Hewlett," and for its motto the following words from the Second Book of Maccabees: "For as it is hurtful to drink wine or water alone; and as wine mingled with water is pleasant and delighteth the taste: even so speech, finely framed, delighteth the ears of them that read the story." Only five hundred copies of the book were issued, and so strange and new was its beauty that four years elapsed before a second edition was called for. Even then its author complained that not more than two people in every hundred who had read him understood what he was about. Yet the open-minded and discerning few had recognized in its publication an event in English literature. It was a book of somewhat uneven interest, somewhat uneven merit; its author had not yet wholly found himself, but some parts of it unmistakably glowed with the fine fresh bloom of genius. Above all, the charm of its style was potent and rich in promise. Its motto was abundantly justified.

In that year appeared also from the same hand another little book even more curious than the foregoing: "A Masque of Dead Florentines, wherein some of Death's Choicest Pieces, and the Great Game that he played therewith are fruitfully set forth,"—a macabre poem, but of an astonishing beauty, a poem that only a genius could have written. In 1896 this author made another bid for the suffrages of those who care for jewel-work in literature with a dainty casket of "Songs and Meditations," a collection of lyrics of exquisite workmanship, sounding in a new and individualistic key. In 1898 he published "The Forest Lovers: A Romance," and therewith leaped to fame as swiftly and as surely as ever Lord Byron did. A hundred thou-

sand readers devoured this enthralling and beguiling story, this "most persuasive piece of modern archaism," and the world began to ask "who is this Maurice Hewlett, this wielder of a pen whose handle is a magician's rod?"

Diligent inquiry, for this writer proved to be a modest, sensitive man, and no self-advertiser, elicited the facts that he was born in London in 1861; that he returned to London from Oxford at nineteen and took up the study of "black-letter" law,

which had been a hereditary practice of his family since the time of his great-grandfather; that he married in 1888 and was called to the bar in 1890; that failing health soon drove him to Italy for an extended sojourn; that school and college life, according to his belief, did not move him greatly, and that the influence of his father, Mr. Henry Gay Hewlett, an antiquarian of learning and repute, and atop of that his Italian wanderings, decided him for literature. Back in London again he lectured at South Kensington and at University College on Medieval Times, and began to write for some of the literary



MAURICE HEWLETT.

journals. For several years from 1896 he served as Keeper of the Records of the Crown Lands, a post which his father before him had filled acceptably.

His next book, "Pan and the Young Shepherd: A Pastoral," though written before "The Forest Lovers," was not published until late in the year 1898. In 1899 appeared "Little Novels of Italy," a group of five tales palpitating with the very life of the Italian Renaissance, tales of extraordinary beauty, depth of imagination, insight, and genuine human interest. Followed in 1900 "The Life and Death of Richard Yealand-Nay," a romance of The Lion Heart, which is not merely a chronicle of Richard's deeds, but as well a realistic analysis of Richard's soul,—an epic novel spreading before us with amazing precision and swiftness, with compelling mastery, a moving, thrilling panorama of the life of the twelfth century "with all its poetry, passion, madness, and blood." "New

Canterbury Tales" (1901) was another sheaf of medieval stories, much in the key and style of the "Little Novels of Italy," and again showing the author's extraordinary power of imaginative perception of the inner life of a distant and an alien age. In 1904 was published "The Queen's Quair, or The Six Years' Tragedy,"—the book of the heart of Queen Mary of Scotland, exhibiting, too, the black hearts of her destroyers,—an even more noteworthy contribution to historical portraiture than his "Richard," and in its subtlety, its life-giving color and movement, its consistency and its fascination a still more remarkable achievement. In 1905 came "Fond Adventures: Tales of the Youth of the World" and "The Fool Errant, Being the Memoirs of Francis-Antony Strelley, Esq., Citizen of Lucca,"—time, the late after-glow of Renaissance Italy.

"The Stooping Lady" (1907) provided a new kind of surprise for Mr. Hewlett's readers. Here was a novel of the England of only one hundred years ago, such a novel as George Meredith might have given us,—indeed, a novel completely in the Meredithian manner, yet bearing unmistakably the mark of Mr. Hewlett's genius and disclosing him as much a master of English life under the Regent as of that of Medieval Italy. This was followed in quick succession last year by "The Spanish Jade," a rushing, breathless tale of adventure and intrigue in which the author showed himself equally at home in the Spain of fifty years ago, and "Half-way House: A Comedy of Degrees," a fascinating novel of contemporary English life, again in the Meredithian manner. A third small volume of verse, "Artemision: Idylls and Songs," inspired by and invocative of the "Queen and Huntress, chaste and fair," was not published until April of the present year, though all the poems it contains were composed more than ten years ago.

Thus Maurice Hewlett's rare representative capacity has steadily advanced and enlarged, as he has worked, from the days of the Youth of the World even unto his own time. A born story teller, a poet enamored of beauty for its own sake, his is the creative imagination, and he endows his people with the breath of life. We see them in the round. They live and move and have a being as real for us as any. We watch them at their work, their play, their fighting, their love-making, and know them true to their age and clime and station, and as true to human nature; we listen to their speech and song,—grave, gay, wise, learned, witty, vulgar, coarse, boastful, bombastic, dainty, or pleading,—and we are carried spellbound out of ourselves and our arid and pragmatic days. They move in an electrical atmosphere, vibrant with vitality, charged with emotion. For their creator is a master of swift narrative, of keen and unerring stroke. He is never content merely to tell us that things happen,—he shows them happening.

This he does in a style that is instinct with

beauty, brilliantly successful in fitting the right word to his idea,—the penetrating word, the enkindling phrase,—marvelous in the perfection and symmetry of its adaptation to the purpose in view. It is a style of terse, nervous, picturesque English, glowing with color, bold in imagery, often closely compressed, sometimes filled with "the euphuism of power," always highly wrought, distinguished, charming, magical. And always wholly his own, a part of his very nature. The charge oftenest brought against Mr. Hewlett's style is that of "preciosity,"—a strained use of words, a far-fetched fastidiousness, too much love of the archaic and the obsolete. But his force and vitality always save him. In his later work he shows an unmistakable gain in simplicity and directness, a gain that is due in part at least to the change of period, for it should not be forgotten that simplicity and directness were not characteristic qualities of the men or the times depicted in his earlier romances.

While his last two novels are conceived in the Meredithian spirit and deal with subjects and situations such as Meredith loved to wreak his powers upon, they are yet stamped with the individuality of Maurice Hewlett. If the mantle of Meredith has fallen upon his shoulders he wears it with a grace and dignity that are his own. Though not so openly manifest in his earlier writings the influence of Meredith is there discernible deep down under the surface; for he has long put into practice that master's precepts of philosophical fiction. He is a subtle psychologist, but his psychology is never permitted to impede the story. Even in "The Forest Lovers," marvelous fairy tale that it is, the real meaning of the book is a soul's proving and development: Prosper wins Isoult at last, not by hard fighting or even by love-making, but by a transformation of soul in which he comes to recognize, after shame and sorrow, that love means not receiving (and still less seizing), but giving and serving. So in all Mr. Hewlett's work, even though it be cast in a guise so fascinating that he who runs as he reads may little suspect any deep underlying purpose, it is the progress,—upward or downward,—of a human soul that is his chief concern. And this is the warrant of his greatness, that his heart is steadfastly set on the reality of the spirit; that he senses for us the eternal in life.

Maurice Hewlett first attracted the attention of the literary world as a stylist. He stands pre-eminent to-day among the writers of English for consummate artistry in the use of words. He is the master literary craftsman of his time. Like Meredith, he must be read with understanding, with the imagination, but when so read he yields, more than any of his contemporaries, unalloyed treasures of human interest and delight. He is now in his prime; and by reason of the things he has already achieved he holds out to us to-day the largest promise in the realm of English literature.

THE NEW BOOKS.

STORIES, TRUE AND OTHERWISE.

A timely story, full of incident, entertainingly written, and full of historic allusion, is Mr. Ford Madox Hueffer's tale of the Hudson tercentenary celebration, "The Half Moon."¹ The narrative includes a description of Hudson's early days in Holland, the voyage of the *Half Moon*, and the discovery of the great river.

Mr. Kipling's most remarkable faculty of describing imaginary, fictitious scenes with a certitude and particularity that positively compel belief is sustained throughout that absorbing short tale which has recently come from his

pen descriptive of aerial navigation. "With the Night Mail"² tells the story of a trip in Postal Packet No. 162 on her aerial run from London one night to Quebec the next morning in the year 2000 A. D. So vivid are Mr. Kipling's descriptions that the reader unconsciously assumes a humble attitude, feeling that if the operations and material things described in this book are unfamiliar to him



JAMES LANE ALLEN.

this fact is due to his own woeful ignorance.

A work of fiction which has neither the structure nor the purpose of a novel, but which is simply a story "locating one point on the field of human nature,"—this is how Mr. James Lane Allen himself characterizes "The Bride of the Mistletoe."³ It is, he tells us further, one of a cycle of stories intended to bring out in terms of American life some of the eternal verities of sex and family relationships. "I was reading one of those new books the other day," says the woman in the story. "The whole purpose of it is to show that any woman in the life of any man is merely,—an Incident." This is the text. The style is exquisite; it is Mr. Allen at his best.

A story which includes almost all the well-known characters and parts of the scenario of the usual American popular novel,—the American hero, the mysterious heroine, and the complications involving the envoy of a foreign power,—these make very interesting reading of Edward B. Mitchell's "Shadow of the Crescent."⁴ It is a tale of adventure in the Turkish revolution of 1908.

An entertaining bit of fiction for summer

¹ *The Half Moon.* By Ford Madox Hueffer. Doubleday, Page & Co. 346 pp. \$1.35.

² *With the Night Mail.* By Rudyard Kipling. Doubleday, Page & Co. 95 pp., ill. \$1.

³ *The Bride of the Mistletoe.* By James Lane Allen. Macmillan. 190 pp. \$1.25.

⁴ *The Shadow of the Crescent.* By Edward B. Mitchell. New York: Frederick A. Stokes Company. 270 pp. \$1.25.

reading, which, moreover, shows quite a literary touch on the part of the author, is Curtis Dunham's "Gambolling with Galatea."⁵ This bucolic romance, with illustrations in color by



RUDYARD KIPLING.

Oliver Herford, is full of wit and humor and quaint description.

A swiftly moving story of a faithful dog and an adventure in the glacier country of Alaska is John Muir's latest essay in the book line. The story, which is marked by fine style in the telling, breathes of the out-of-doors and of an intelligent love of animals. Its title, "Stickeen,"⁶ is the name of the dog who came originally from the Stickeen Indians.

Besides being a good exemplification of modern Anglo-Saxon altruism, Dr. Wilfred T. Grenfell is a capital writer of stories. When he tells of his own adventures he is particularly inter-



ONE OF OLIVER HERFORD'S DRAWINGS FOR "GAMBOLLING WITH GALATEA."

⁵ *Gambolling with Galatea.* By Curtis Dunham. Houghton Mifflin Company. 186 pp., ill. \$1.15.

⁶ *Stickeen.* By John Muir. Houghton Mifflin Company. 74 pp. 60 cents.

esting,—witness, “*Adrift on an Ice-Pan*,”¹ also the story of a human in company with a canine explorer. Dr. Grenfell’s story would make capital supplementary reading to Mr. Muir’s “*Stickeen*.”

BIOGRAPHY AND MEMOIRS.

Many Americans, natives of the South especially, have thought that the South Carolinian, Robert Y. Hayne, has suffered unmerited neglect at the hands of the historians. Indeed, the present generation, particularly in the North, has become quite familiar with the statement that Hayne is known to our national history only as the opponent of Webster in the United States Senate. Mr. Theodore D. Jervey, in his new volume, “*Robert Y. Hayne and His Times*,”² maintains, on the other hand, that from the very beginning of his service in the Senate and throughout the Nullification debates Hayne was the undisputed leader of his faction, while Clay succeeded Webster as the leader of the opposing faction, the Protectionists. The Nullification controversy, in which the State of South Carolina and her representatives in Congress bore so prominent a part, forms an episode in our national history that occasioned an immense amount of controversial writing before and after the War of Secession. It is doubtful whether new light has been thrown on the matter by Mr. Jervey’s researches, but so far as the personal career of Hayne is concerned Mr. Jervey has made use of manuscript sources and has undoubtedly gathered some facts not heretofore generally known.

The late Wendell Phillips Garrison’s “*Letters and Memorials*”³ give interesting glimpses of the busy life of the literary editor of the *Nation*. Mr. Garrison’s forty years’ service as a journalist was marked by a rigid adherence to scholarly ideals and by a calm and seasoned editorial judgment. Some of Mr. Garrison’s editorials and essays, as well as various poems, are reprinted in this volume in addition to a selection of his letters.

STUDIES OF CITY GOVERNMENT.

In the group of books on municipal government that have appeared during the last few months a volume by Horace E. Deming,⁴ of the New York bar, is easily among the most important. Mr. Deming has been interested in municipal problems and active in organized efforts for the solution of such problems for many years. To him is due the chief credit for the formulation of what is known as the Municipal Program of the National Municipal League, which is reprinted as a portion of the present volume. His work has led him to make an exceptionally thorough study of municipal organization, and especially the relation of the city to the State. Mr. Deming is not one of those who believe that the failure of city government in the United States is a failure of democracy. He contends, on the other hand, that such fail-

ure is directly due to the fact that truly democratic principles have not been logically applied to city government in America as they have been applied, at least to a certain extent, in State and nation. His book is intended to show that there is no real complexity in the nature of the principles involved in municipal government, and that the principles of civil government generally may be safely applied in city government.



ROBERT DONALD.

He examines specific municipal problems as they have been developed in the United States, and brings to bear upon these the experiences of foreign cities. Mr. Deming’s conclusions are decidedly optimistic, but he does not neglect to point out the manifold pitfalls into which our city charter-makers in this country have fallen.

Professor Munro’s⁵ treatise on city government in France, Germany, and England is concerned less with principles than with the structure and functions of the city. In other words, it tells what the city governments in these three European countries attempt to do and how they do it. The work is encyclopedic in the range and character of the information presented. The author has acquired specific and detailed knowledge of an immense number of pertinent facts related to municipal government in the three countries comprehended in the survey. Such a body of knowledge is of the greatest value to all students of comparative administration.

The volume of proceedings of the Pittsburgh Conference for Good City Government,⁶ held in November last, is notable for the contributions made by the so-called Pittsburgh Survey, the Bureau of Municipal Research of New York City, as well as for various important papers on municipal problems by specialists.

Mr. Robert Donald’s valuable “*Municipal Year Book of the United Kingdom*”⁷ for the current year is even bulkier than its predecessors of this series. Among the new features included in this volume are a list of the old-age pension committees, together with the text of the old-age pensions act, a table of the schemes of Small Holdings received by the Board of Agriculture, and a chapter on the new Port of London Authority.

Dr. Frederick A. Cleveland, director of the New York City Bureau of Municipal Research, has brought together some extremely suggestive “*Chapters on Municipal Administration and*

¹ *Adrift on an Ice-Pan*. By Wilfred T. Grenfell. Houghton Mifflin Company. 69 pp., ill. 75 cents.

² *Robert Y. Hayne and His Times*. By Theodore D. Jervey. Macmillan. 555 pp., ill. \$3.

³ *Letters and Memorials of Wendell Phillips Garrison*. Houghton Mifflin Company. 298 pp., por. \$1.50.

⁴ *The Government of American Cities*. By Horace E. Deming. Putnam. 323 pp. \$1.50.

⁵ *The Government of European Cities*. By William B. Munro. Macmillan. 409 pp. \$2.50.

⁶ *Proceedings of the Pittsburgh Conference for Good City Government*. Edited by Clinton Rogers Woodruff. Philadelphia: National Municipal League. 480 pp.

⁷ *The Municipal Year Book, 1909*. Edited by Robert Donald. London: Edward Lloyd, Ltd. 1010 pp.

Accounting,"¹ which are designed to set forth the business aspects of municipal government in a concrete way. The question of graft in city government is discussed by Dr. Cleveland, not from the muck-raker's viewpoint, but as a natural phenomenon of inefficient government. The financial management of cities, the principles of budget-making, and the reform of municipal accounts are the topics to which Dr. Cleveland's book is chiefly devoted. His discussion of these matters is rendered doubly interesting from the many illustrations that he cites from actual experience and the numerous practical suggestions that he offers for the basis of a reorganization of municipal finance.

BOOKS ON THE MECHANICS OF LITERATURE.

An increasing number of unpretentious but useful studies of pure literature and the development of our English speech in its written form marks the present publishing season. A study of the mechanism of the short-story may or may not be useful. The manual, "Writing the Short-Story,"² however, by Dr. J. Berg Esenwein (editor of *Lippincott's Magazine*), contains a good deal in the way of practical suggestion as to the rise, structure, writing, and marketing of the modern short-story. Dr. Edwin W. Bowen's "Questions at Issue in Our English Speech"³ consists of a series of really interesting essays on standard English. Miss Sara R. O'Brien, who is a teacher in both the day and evening schools of Springfield, Mass., has done a useful thing in bringing out the little book, "English for Foreigners."⁴ As a beginner's book in English it seems very happily conceived and logically developed, typographically particularly. There is evident the result of considerable experience in teaching, also, in the "New-World Speller"⁵ compiled by Julia Helen Wohlfarth and Lillian Emily Rogers, of

the Horace Mann School at Columbia University. Students of English literature will find useful Francis B. Gummere's translation of "Beowulf," which, made from the original meters with introduction and notes, he has brought out under the general title "The Oldest English Epic."⁶

HUMORS OF AMERICAN LIFE.

Mr. Wallace Irwin is not less successful than Mr. Finley Peter Dunne in exposing our national foibles, and the methods of the two writers are not unlike. "Letters of a Japanese Schoolboy,"⁷ as they appeared in *Collier's Weekly*, appealed to the American sense of humor quite as effectively as did the good-natured discourses of "Mr. Dooley." So convincingly was "Hashimura Togo's" personality interpreted by Mr. Irwin in the letters that for a long time many readers of *Collier's* believed that the author was actually the young Japanese student that he was represented to be. Mr. Irwin knows his Japs as well as Mr. Dunne knows his "Mr. Dooley," and that is saying a great deal.



SIGHTS OF THE AMUSEMENT PARK, AS VIEWED BY MR. HARTT.

(Drawing, reduced, from "The People at Play.")



"'BUT CHINA!! SUCH EYE-PAIN OF NATIONS.'"
(Illustration, reduced, from "Letters of a Japanese Schoolboy.")

¹ Chapters on Municipal Administration and Accounting. By Frederick A. Cleveland. Longmans, Green & Co. 361 pp. \$2.

² Writing the Short-Story. By J. Berg Esenwein. New York: Hinds, Noble & Eldredge. 448 pp. \$1.25.

³ Questions at Issue in Our English Speech. By Edwin W. Bowen. New York: Broadway Publishing Company. 154 pp. \$1.

⁴ English for Foreigners. By Sara R. O'Brien. Houghton Mifflin Company. 157 pp., ill. 50 cents.

⁵ New-World Speller. By Julia H. Wohlfarth and Lillian E. Rogers. Yonkers, N. Y.: World Book Company. 160 pp., ill. 25 cents.

In "The People at Play"⁸ Mr. Rollin Lynde Hartt, who has been a diligent student of popular amusements in our great cities, pictures some of the results of his observations. We do not know whether Mr. Hartt classes himself among the sociologists, but his book is certainly a contribution to that science and is all the more effective, perhaps, because the author has attempted no systematic development of the subject, but has merely given a series of vivid pictures pervaded by the spirit of human and kindly tolerance.

ESSAYS.

The past twelve months have witnessed a real increase in the production of good essays on religious, ethical, and altruistic phases of human belief and activity. Professor Münsterberg, who, whether we agree with him or not, always has something to say, has translated his German edition of "The Eternal Values."⁹ In this English version he has omitted some of the considerations of purely German intellectual and moral movements, and has made some additions refer-

⁶ The Oldest English Epic. By Francis B. Gummere. Macmillan. 200 pp. \$1.10.

⁷ Letters of a Japanese Schoolboy. By Wallace Irwin. Doubleday, Page & Co. 370 pp., ill. \$1.50.

⁸ The People at Play. By Rollin Lynde Hartt. Houghton Mifflin Company. 317 pp., ill. \$1.50.

⁹ The Eternal Values. By Hugo Münsterberg. Houghton Mifflin Company. 436 pp. \$2.50.

ring to American conditions. The purpose of the volume, he announces, is to answer the "relativist" and to argue that idealism is justified by true science and true philosophy. Captain Mahan will appear in a new guise to most of his readers as the writer of the recent volume, "The Harvest Within."¹ This is a volume of "occasional thoughts and reflections" on Christ's enunciation: "Because I live, ye shall live also." Prof. Goldwin Smith, on the other hand, is not positive about anything. He is more nearly the "relativist" of Dr. Münsterberg's condemning. In the little volume, "No Refuge but in Truth,"² which is an enlarged edition of the original work of that name, Professor Smith gives a picture of the "uncertain state of mind of the age." "Pastor" Wagner presents still another viewpoint on the religious life and experience. He gives us nothing new, but repeats in his own sweet, suggestive style his former message in this his latest book published in English, "The Home of the Soul."³ To Mr. J. Howard Moore, who is instructor in zoology in one of the Chicago high-schools and a well-known advocate of vegetarianism, "The New Ethics"⁴ are constantly being renewed. They are the product, he believes, of the activity of the mind of the young, "who have not yet passed into the solid state." And finally, we have the scholarly, artistic, analytical studies of Mr. Paul Elmer More,⁵ the sixth series of whose Shelburne essays have recently appeared. Mr. More's attention in this present volume is given largely to some of the personalities of great religious, ethical, and philosophical leaders of ancient and modern history.



EDGAR GARDNER MURPHY.

A tone of courteous, firm conviction expressed in scholarly, elegant style is characteristic of all the writings of Mr. Edgar Gardner Murphy. In his book, "Problems of the Present South," which appeared five years ago, he made himself instantly known as an authoritative, representative writer on topics concerning the South, whose opinions commanded respect because of their calmness and logic. These qualities characterize in a high degree his latest book, "The Basis of Ascendancy."⁶ In this volume Mr. Murphy endeavors to formulate the great race question, as the South must see it for her pres-

ent comfort and future security. Back of all the issues of the moment, he declares, "as they may express themselves in this or that phase of definite legislation or of accepted custom, there lies the question of fundamental attitude. Where two social or racial groups,—a stronger and a weaker,—find themselves in inevitable contact upon the same soil, what elementary principles shall ultimately determine the policies of the state?"

Mr. Charles F. Thwing's "Studies of Education in the Far East"⁷ are written in his usual interpretative, thought-provoking style. In this volume he considers the educational problems as they confront Japan, China, India, Korea, the Philippines, and Egypt, and while venturing to lay down probable solutions of these problems he also sets forth graphically the part that might be played by improved educational methods in the general industrial and political, as well as educational, future of the East.

It takes a certain amount of intellectual as well as moral courage to put before a New England audience the question, "Is Immortality Desirable?"⁸ In his address under this title, as one of the Ingersoll lecturers of 1908, at Harvard, Mr. G. Lowes Dickinson (author of "Letters of a Chinese Official," "The Meaning of Good," "Justice and Liberty," and other books of essays) does not attempt to deliver any final judgment; but intends, as he puts it modestly, "to make a speech in a debate which proceeds from century to century, which has been perpetually adjourned and never concluded. Mr. John Berry's book, on the other hand,—"Some Assurances of Immortality,"⁹—assumes the very great desirability of a future conscious state, and argues the point in calm, orthodox fashion.

REFERENCE BOOKS.

The edition of the Statesman's Year-Book for 1909¹⁰ is a portly one, containing a number of highly valuable and important improvements upon preceding editions. The map section has been extended and improved, and almost all the historic developments of the year 1908 have been included. The British Empire comes in for the first consideration in order, then the United States is treated, after which the alphabetical order is maintained as usual. This year-book is one of the essentials of every library.

Prof. Paul S. Reinsch, of the University of Wisconsin, has made a useful compilation for the use of students of the processes of American government.¹¹ With the exception of a few magazine articles treating of the actual administration of our federal Government in its various aspects, nearly all the selections reprinted in this volume are from the spoken or written work of men actually engaged in the business of government,—Presidents, legislators, administrative officials, and judges.

¹ The Harvest Within. By A. T. Mahan. Little, Brown & Co. 280 pp. \$1.50.

² No Refuge but in Truth. By Goldwin Smith. Putnam. 93 pp.

³ The Home of the Soul. By Rev. Charles Wagner. Funk & Wagnalls Company. 349 pp. \$1.20.

⁴ The New Ethics. By J. Howard Moore. Chicago: Samuel A. Bloch. 216 pp. \$1.

⁵ Shelburne Essays, Sixth Series. By Paul Elmer More. Putnam. 355 pp. \$1.25.

⁶ The Basis of Ascendancy. By Edgar Gardner Murphy. Longmans, Green & Co. 248 pp. \$1.50.

⁷ Education in the Far East. By Charles F. Thwing. Houghton Mifflin Company. 277 pp. \$1.50.

⁸ Is Immortality Desirable? By G. Lowes Dickinson. Houghton Mifflin Company. 63 pp. 75 cents.

⁹ Some Assurances of Immortality. By John B. N. Berry. New York: R. F. Fenno & Co. 66 pp. 50 cents.

¹⁰ The Statesman's Year-Book, 1909. Edited by J. Scott Keltie. Macmillan. 1404 pp. \$3.

¹¹ Readings on American Federal Government. By Paul S. Reinsch. Ginn & Co. 850 pp. \$2.75.

The American Review of Reviews.

EDITED BY ALBERT SHAW.

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LIEUTENANT SHACKLETON, WHO HAS COME NEARER TO THE SOUTH POLE
THAN ANY OTHER HUMAN BEING.

Ernest H. Shackleton, of the British Navy, on January 9 of the present year, reached latitude $88^{\circ} 23'$ South, within 111 miles of the South Pole. Last month the British Government decided to refund to him the expenses of his expedition, which "has cast imperishable glory on the British name." Lieutenant Shackleton is planning a lecture tour through the United States in the near future.

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THE PROGRESS OF THE WORLD.

"Revision Upward." The House of Representatives accepted the report of the joint Conference Committee on the Payne tariff and adopted it on the last day of July. The Senate took a few days longer for debate and passed the measure on Thursday, August 5. President Taft signed it immediately, and the law went into effect at midnight. Meanwhile great ships were racing across the Atlantic laden with goods, importers were straining every nerve to get their stuff into the custom house Thursday evening rather than Friday morning, and Collector Loeb, at the Port of New York, found himself fairly besieged by the custom house brokers and their principals, who were desperately eager to have their cargoes admitted under the Dingley rates instead of the Payne rates. And yet the country was being solemnly told that the tariff had been quite materially reduced pretty much all along the line. Surely it is something new under the sun for the people who pay custom-house duties to scramble and fight in order to get in under the higher rather than the lower rates. The Government needs revenue quite seriously, and it would hardly be reasonable to suppose that Congress would pass a revised tariff bill and put it into effect immediately, without giving anybody a chance to know the details, if rates on the average were to be sharply reduced.

What the New Law Really Is. The simple fact is that the Payne tariff is the most thoroughgoing high-protectionist measure that has ever been enacted in this country or in any other land. It is far too intricate for the understanding of any one man, unless he has devoted himself for years to the sole and exclusive study of tariff details. For non-experts who have given several solid

months recently to the tariff question, Mr. Payne, Senator Aldrich, and others in Congress are quite remarkably well informed. But it would be ridiculous to insist upon the view that these or any other gentlemen in Congress actually made the tariff schedules. In this tariff, as in all preceding tariffs, the schedules have been worked out upon the basis of the technical knowledge and the urgent demands of the people actually engaged in the numerous industries seeking some form of benefit by virtue of some particular part of the tariff enactment. Readers who would really like to know what the new tariff is,—in comparison with the Dingley tariff which suddenly disappeared on the night of August 5,—will do well to read carefully the article which we have caused to be prepared for their enlightenment, and which will be found beginning on page 341 of the present issue of the REVIEW.

An Expert's Analysis. The article has been prepared, without bias and with the greatest regard for accuracy, by an expert who is much better able to deal with this question of rates and schedules in detail than is any member of either House of Congress, without exception. The average rate of duty worked out by application to actual importations in the last year of normal business (1907) shows a slight increase in the new tariff. But this small increase, apparent on the face of things, will become a good deal greater when the actual outcome can be shown, a year hence, of the shiftings and jugglings of classification. It is almost impossible to keep what are known in Washington as "tricks" and "jokers" out of the tariff schedules. At one stage or another, this Payne bill was full of these subtle little provisos and qualifications, the real meaning of

which was intended to be hidden from the average Congressman until the bill had been safely passed and signed. A good many of these petty and disgraceful tricks were detected and eliminated. Some others which were cut out in course of debate were slipped in again while the bill was in Conference Committee. The reader of our expert's article will find concrete instances of this kind clearly stated.

How the Consumer Fares. The great public was entitled to reduced rates on articles of clothing. Our expert shows how the public was bamboozled all along the line. Mr. Taft, who began to take a keen interest in details of the tariff toward the end of the Senate debate, insisted upon having hides put on the free list in accordance with the views of the Eastern tanners and makers of shoes and leather articles. This was finally conceded by the West, in consideration of a material reduction in the duty on shoes and other leather manufactures. But it was found after the bill had come out of the Conference Committee that the reduction on shoes had been qualified in such a way as to be without any meaning or value. Such a storm was raised about this that, in order to save the tariff bill as a whole from wreckage, a joint resolution was adopted instructing the enrolling clerk to leave out the qualifying words. The tricksters fought till the last.

The Method of Folly.

In its total effect this new law, so far as the customs duties are concerned, has not justified a hot extra summer session of Congress lasting twenty weeks. The whole business serves to illustrate the futility of the present way of dealing with the tariff. The chief value of the session lay in that part of the great Senate debate which set forth the ignorance, folly, and favoritism, as well as the recklessness involved in making tariff schedules by dickers and trades among the representatives of private interests. The tariff in detail is certainly a most monstrous and iniquitous performance. This remark is by no means meant to attack those who hold sincerely to the theory of protection and who believe that protection can be put into practice on broad, general grounds. But the present bill was not made from the standpoint of protection on broad, general grounds, nor was it made from the more obviously legitimate standpoint of sound taxation and the production of Government revenue. Nor should this comment be construed as a criticism of the public men who have had a part in enacting the new law. It is not so intended. It is meant to be as emphatic a criticism as words will permit of the method by which our tariffs are made. It is an abominable method,—a disgrace to a civilized country. It is everybody's fault. The tariff is as good as the country demands.



THE TARIFF FRANKENSTEIN.
From the *Traveler* (Boston).

The Tariff Commission's Functions.

At the very end of the session the clause providing for the appointment of a commission of tariff experts by the President was altered by cutting out the words intended to give this group of experts authority to make general tariff inquiries at the President's direction for the benefit of future legislation. In its final form the clause authorizes the President to appoint these experts for the sake of aiding him in the exercise of the discretion conferred upon him to apply the new maximum and minimum rates to foreign countries. This is something very different from the purposes of the tariff commission as generally advocated by thoughtful men throughout the country. Senator Beveridge had prepared the original clause which was finally altered. In the last days of the debate on the conference report he inquired if the change was meant to prevent the tariff commission from making inquiries in the field of cost of production and of tariff rates in general. Senator Hale, of Maine, who ranks



THE ROADS ARE TERRIBLE, BUT THE CAR HAS PLENTY OF POWER.

Herbert Johnson in the *Philadelphia North American*.

next to Senator Aldrich in the Finance Committee, replied with great frankness and characteristic zest that the change in the tariff-commission clause was intended to restrict the work of the experts absolutely to advising the President about applying maximum and minimum rates. President Taft, on the other hand, says that he can manage to use the tariff experts in such a way as to get the practical results that the advocates of a tariff commission had demanded. In view of the specific and pointed refusal of Congress to confer any such power upon a commission, it is somewhat difficult to see how President Taft can make his experts do the things which they were to have done in the bill as it passed the Senate, but which the Conference Committee struck out from the final measure at the behest of the House leaders, who have never favored any kind of a commission, and had allowed none in the Payne bill.

What
of the
Future?

There was, indeed, never any chance of obtaining at this extra session a decent revision of the tariff schedules. Public opinion was not well developed on that subject. Individual mem-

bers of Congress were under pressure from their respective States and districts. Only a handful of men took the large, national view. Every locality in the country,—North, South, East, and West,—was selfishly demanding the thing that it believed would make for its own interests. Nominally it was a Republican tariff; actually it was just as much Democratic as Republican, and in point of fact it was not partisan at all. It was simply a hodge-podge, on the plan of an old-fashioned river and harbor bill. The reductions of rates in so far as the consumer is concerned were more nominal than real. The great protected interests were all well looked after. The nominal reductions in iron and steel were little or nothing, as compared with what the great American steel industry could readily have borne. The textile industries are more carefully protected than under the Dingley bill. There are, of course, some good things in the law, such as the relaxation of the taxes on foreign literature and art. It had been hoped that Congress would at least grant the country a tariff commission which could be getting ready for a scientific revision at some time in the future. But this is exactly what the lobbyists of the great pro-

tected interests do not want. The present chaotic method of tariff-making is the thing they are determined to retain if possible.

*No Remedy
Through
Partisanship.*

For a remedy it would be idle to turn from one party to the other. Tariff reform will have to come in this country through a ripening of business conditions and the development of public opinion. The Democratic party, in spite of its traditional pretensions on the score of tariff reform, has not even as broad a national view of the subject as the Republican party and is not a promising instrument for sound revision. The most hopeful sign was that presented by the group of dissenting Republican Senators. Their discussion of the tariff question was broad, patriotic, and able. One does not need to accept their views and positions in detail in order to perceive that they represent, upon the whole, a higher standard than that of the majority. Seven of these Senators decided to vote against the adoption of the conference report. These, in alphabetical order, were Beveridge, of Indiana; Bristow, of Kansas; Clapp, of Minnesota; Cummins and Dilliver, of Iowa; La Follette, of Wisconsin, and Nelson, of Minnesota. These gentlemen were well aware, of course, that the bill had a safe majority and would become a law.

They had criticised it, for one reason or for another, very severely during the debate; and they thought it best, each man for his own reasons of judgment and conscience, to vote against the bill in the end. Perhaps if their votes were to have determined the fate of the measure some of them might have voted differently. It may be safely predicted that they will have no difficulty in making their positions clear to their constituents. The Iowa and Minnesota Senators disapprove in a thoroughgoing way of many essential parts of the law. Senator Beveridge had for several years been identified with the movement for a tariff commission; and he might have voted for the present measure, unsatisfactory as he may think its schedules to be, if his commission plan had been adopted as an instrument for securing better results in the future. But when his commission scheme was destroyed by having the vital clause taken out of it he had a very ample reason for voting against the bill.

*The Corporation
Tax Is Now
the Law.*

We stated in these pages last month some grounds upon which the new corporation tax that is made part of the general Payne bill has been criticised as not equitable. However the courts may construe it technically as an "excise" tax, it is in reality, of course, an income tax upon corporations. It picks out business enterprises throughout the country having nothing in common, except that they are carried on as joint-stock companies, and it levies a federal tax of 1 per cent. upon their net earnings or incomes. Hundreds of comparatively small businesses which six months ago were contemplating the plan of becoming incorporated under the laws of their respective States will give up that idea and remain as private firms or partnerships. One hears of many others already in the corporate form which are thinking of relapsing to the status of partnerships or unincorporated firms. Among practical business men the difference between an incorporated business and its rival which happens not to be incorporated does not seem vital enough to make it proper that one should be subjected to a federal tax and the other exempt.

*Arbitrary
Dis-
tinctions.*

But if this distinction be practically unjust, it would seem a still greater impropriety to exempt from taxation an incorporated enterprise which is carrying on a large business, but does not show profits, while subjecting to



DEFIANT TO THE END.
From the Press (New York).



Photograph by the Pictorial News Co., N. Y.

PRESIDENT TAFT, WITH SENATOR ALDRICH AND MR. PAYNE

(At the testing of the Wright brothers' aeroplane, near the close of the Payne-Aldrich tariff conference.)

taxation its rival doing business with like capital and under exactly similar conditions, but managed on its expense side in such a way as to permit the setting aside of a portion of the gross earnings in the form of dividends or net profits. The taking out of net profits under such circumstances is purely a matter of business policy and choice. One dry-goods store may decide as a matter of policy for several years to cover back all its receipts in various expenditures, such as advertising, while its rival for reasons of its own prefers to make salaries and advertising expenses smaller and to pay dividends upon outstanding shares of stock. The one institution is as able to pay taxes as the other. The only possible basis for a proper taxing of corporations upon any showing of their business condition is upon their gross income. What they do with that gross income in the way of fixed charges, current expenses, and so on, is a matter for them to decide.

*Several
Kinds of
Corporations.* It is obvious to the thoughtful man that there are several very different groups of business corporations. First there are fiduciary concerns,

notably banks, institutions for saving, trust companies, and insurance companies. It is everywhere admitted that these ought to be under public regulation, and that their affairs should be duly inspected and publicly reported. Then comes a totally different class of corporations, of a quasi-public character, because holding public franchises and rendering certain necessary public services. These are transportation companies, general and local, telegraph, telephone, gas and electric lighting companies, and the like. It is proper that these should be held to public account. There is still another class of corporations that can be grouped in a real sense, although it is hard to bound them by an exact line. These are the so-called "trusts." They are ordinary, private business undertakings which have grown so large as to have assumed a public character through their magnitude and importance and also, as a rule, through the fact that their shares of stock are listed upon exchanges and publicly bought and sold. There are possibly two or three hundred of these, if the list be made as inclusive as possible. As a rule, they have absorbed smaller companies.

*The Minnows
with the
Big Fish.*

Here we have three groups of corporations which most people admit should be subject to some kind of public oversight and regulation; and the third group,—namely, the great industrial corporations engaged in interstate commerce,—ought, it is asserted in the platforms of all political parties, to be regulated by the federal government. Mr. Taft and the advocates and supporters of the new corporation tax declare openly that their measure is designed as a method of securing publicity and federal oversight of corporations. But the thing that seems to have been lost sight of, at least in its proper bearing and proportion, is the fact that there are scores of thousands of business corporations in this country that no political party, however radical, has ever asked to have brought under any kind of federal regulation, control, or taxation, or under any scheme of publicity and reporting. Mr. Bryan in all his proposals for regulating trusts and corporations has been careful to say that he had no thought of extending federal cognizance to any incorporated businesses excepting those really national in magnitude and scope, and to some extent, at least, monopolistic in their power to control their own particular lines of trade.

*What the Public
Does Not Care
to Know.*

With all respect to the gentlemen who have brought this measure forward,—and have secured its enactment into law with less discussion than was given to any one of a hundred details of the tariff schedules,—we must hold to the opinion that the discriminations in this new tax are not based upon sound distinctions. Nor does the suggestion that the measure will really aid us to secure federal regulation of corporations seem to be well founded. The country will not care to have officials at Washington secure a stringently accurate sworn report of the business transactions and net profits of an incorporated lumber yard at Lincoln, Nebraska, for instance, while the rival lumber yard, perchance doing a bigger and more profitable business and quite as able to pay taxes, should be neither listed nor taxed, all because Jones & Co. are not incorporated, while Smith & Co. are a joint-stock concern under the Nebraska law. The tax itself is small, and it is not pretended that it is to be levied for the sake of revenue. A proper readjustment of the tobacco taxes alone would supply more revenue than the promoters of the corporation tax expect from this experiment. The group of great indus-

trial corporations whose general transactions are already known have little occasion to bother about this corporation tax as at present devised. It will not hurt them or annoy them. But for every one of these big public industrial companies, or "trusts," there are several thousand little corporations doing a private business, as regards which no element of public opinion whatever has been demanding federal publicity. It is true that a number of the States have for their own State purposes seen fit to accompany the grant of business charters with a moderate plan of special corporation tax. But this has not usually been levied with any unwelcome incidents of publicity, and is upon a principle quite different from that of the federal tax.

*Publicity
as the
Law Requires.*

Many business men are only now realizing, after a careful reading of the text of the new corporation tax law, what a thoroughgoing and all-including measure of publicity it is. Every business, bakery, grocery store, or village draying concern, incorporated or working as a joint stock company, is subject to the tax, provided only its net profits exceed \$5000 in a year. Undoubtedly the most irksome and unpopular result of the measure will be the entire publicity given to the affairs of concerns that are in effect private businesses, though conducted under the corporate form. Such a business would generally have little objection to paying the tax, or to reporting its paid-up capital stock, and the amount of its bonds and other indebtedness. The new law provides, however, that in addition there must be reported the gross income, the aggregate expenses for the year, the amount of interest paid, the taxes paid, and the figures of net income for the year. These reports are placed on file for public inspection, and there is little doubt but that the office of the Commissioner of Internal Revenue, where these figures will be shown as public records, will be a busy spot for disseminators of gossip and for people anxious to find out the inside facts of their rivals' business. If the accountant's science were an exact one there would be less disadvantage in such a situation; but where the best and more honest of intentions exist the accountant's science is notoriously inexact. The penalties for failures to file statements are drastic. The Commissioner of Internal Revenue is empowered to examine the books of a corporation failing to report and to use the United States courts to compel the attendance of officers and the production of

books and papers. For failing to file the report or for presenting a false or fraudulent one the corporation is to be fined from \$1000 to \$10,000, and any individual making a false report is liable to a fine of \$1000 or imprisonment, or both. The annual report is to be made on or before March 1, as of the calendar year preceding, and the tax must be paid before July 1 following.

With the year's crops worth *Prosperity.* \$8,000,000,000, with the tariff settled, with the steel business jumping to nearly its normal activity, and with no political clouds on the sky, trade and finance have fairly come to what is known as a "boom," although it is several months less than two years after the panic of 1907. In the stock market there has been an almost continuous rise in the prices of securities during the past quarter year. In the last days of July and the first part of August this rise became more rapid and excited under the stimulus of the tremendous advance in the stock of the United States Steel Corporation and of the rumors of important happenings in Union Pacific financing. The common stock of the Steel Corporation sold as high as $78\frac{1}{2}$, as against $41\frac{1}{4}$ in last May, $22\frac{5}{8}$ in October of 1907, and $8\frac{3}{4}$ in 1904. There has suddenly come this summer a general belief that the Corporation is able to show good value behind even its junior securities, while it is obvious that if such a period of depression as we have been through in the steel trade could be weathered so nicely there must be a great opportunity for earnings in the "boom" times. The belief of the men who are managing the Steel Corporation in the value of its stock is now known to be very strong. The new plant at Gary, the most modern in the world, and built out of earnings, will importantly reduce costs of manufacturing, and, what is most essential of all, the country is again buying steel heavily. Railroads are giving large orders for cars, locomotives, rails, and bridge material, and while the Corporation was in the middle of August still operating only 90 per cent. of its capacity, this shows an advance of 50 per cent. over its business of three months ago, and it is said that the present output is really greater, in absolute figures, than the record output of 1907. The excitement and record prices in Union Pacific securities,—the common stock reached 219 on August 16, as against 100 in 1907,—were caused by apparently well founded rumors

that the assets of the railroad would be "segregated." In other words, the present stockholders are, if this report be true, to receive certificates of beneficial interest in the enormous holdings of the Union Pacific of the stock of other roads. The net income of this marvelous system promised to give about 20 per cent. for the common stock for the last year. The general list of securities dealt in on the Stock Exchange rose so rapidly in sympathy with these rosy facts, and in response to the improving general business of the country, that the average price of the important railroad stocks reached on August 14 a price of 134.46, as against the high record in 1906 of 138.36. We are now seeing the securities of American industries sell at about the highest figures reached in the past generation.

*The Cost
of
Living.*

The average householder finds some difficulty in getting the full measure of satisfaction from the return of the country to trade activity, for the cost of living, which has been increasing so rapidly for most of the past thirteen years, is again advancing from the slightly lower levels brought by the depression of 1908. All through the past summer the prices of the necessities of life have been slowly advancing, reaching on August 1 the highest figure reported for that date, save one in 1907. It is rather startling to see that the average cost of the supplies practically every household must buy has increased over 49 per cent. since 1896. The Bradstreet Agency has selected 106 articles of domestic consumption and has kept a careful record of their prices, month by month, for seventeen years. The highest point ever reached was in March, 1907, after which came the moderate slump caused by the financial disturbances of that year. We are now marching steadily back toward this high record, and the August figures are only 6.8 per cent. below it. Some of the individual cases of increased costs are much more impressive than the average. Rubber has advanced from 81 cents a pound in 1896 to \$1.98 a pound now; pork, from \$8.25 per barrel to \$21.75; eggs, from $12\frac{1}{2}$ cents a dozen to 28 cents; mutton, from $5\frac{1}{2}$ cents a pound to 11 cents; corn, from 34 cents a bushel to 80 cents; wheat, from 64 cents a bushel to \$1.20, and so forth. The figures given are wholesale prices, and as a rule the advance to the ultimate consumer has been decidedly greater. It is rather interesting to note, in reading the Bradstreet statistics, that

the commodities controlled by the trusts have generally shown a smaller increase in price than the average. Thus refined petroleum sold in 1896 for 7.8 cents a gallon, and the wholesale price now is 8½ cents; sugar cost in 1896 47½ cents per pound and costs now 4.85 cents; anthracite coal in 1896 cost \$4.25 a ton and is now \$4.90.

*Census Takers
and
Their Plans.*

Plans for taking the census of the United States next summer are now going forward in a satisfactory way. Heretofore the taking of the

census once every decade under mandate of the Constitution has been regarded as a transient public job in which all the petty politicians should have a hand, like the wheat harvest in Kansas, where anybody for a few days may have good wages and plenty to eat. The politicians have fought hard to keep the civil service reformer from having his way with the census of 1910. But President Roosevelt vetoed the Census bill because Congress refused to heed his advice on the civil service question, and President Taft would not accept a bill until it had been

properly drawn in this respect. In former times, moreover, the Director of the Census dawned on the political horizon as a very powerful person, with an enormous patronage at his disposal, to be farmed out among the Congressmen and other local leaders subject to certain conditions. But the Census Bureau several years ago was made permanent, with certain *ad interim* statistical functions and the skeleton of an organization which could be expanded for directing the great decennial task. This permanent Census Bureau was assigned to the new Department of Commerce and Labor. Quite naturally Mr. Nagel, appearing on the scene as

head of the Department of Commerce and Labor in Mr. Taft's Cabinet, took it for granted that the Census Bureau was subject to his control, in exactly the same sense as the Bureau of Corporations and all other bureaus of his portfolio. But the head of the bureau, Mr. North, was going on as a permanent official in the independent and self-directed manner of the Directors of the Census who had preceded him from time to time for a hundred years. This was very natural under all the circumstances, as can easily be seen.



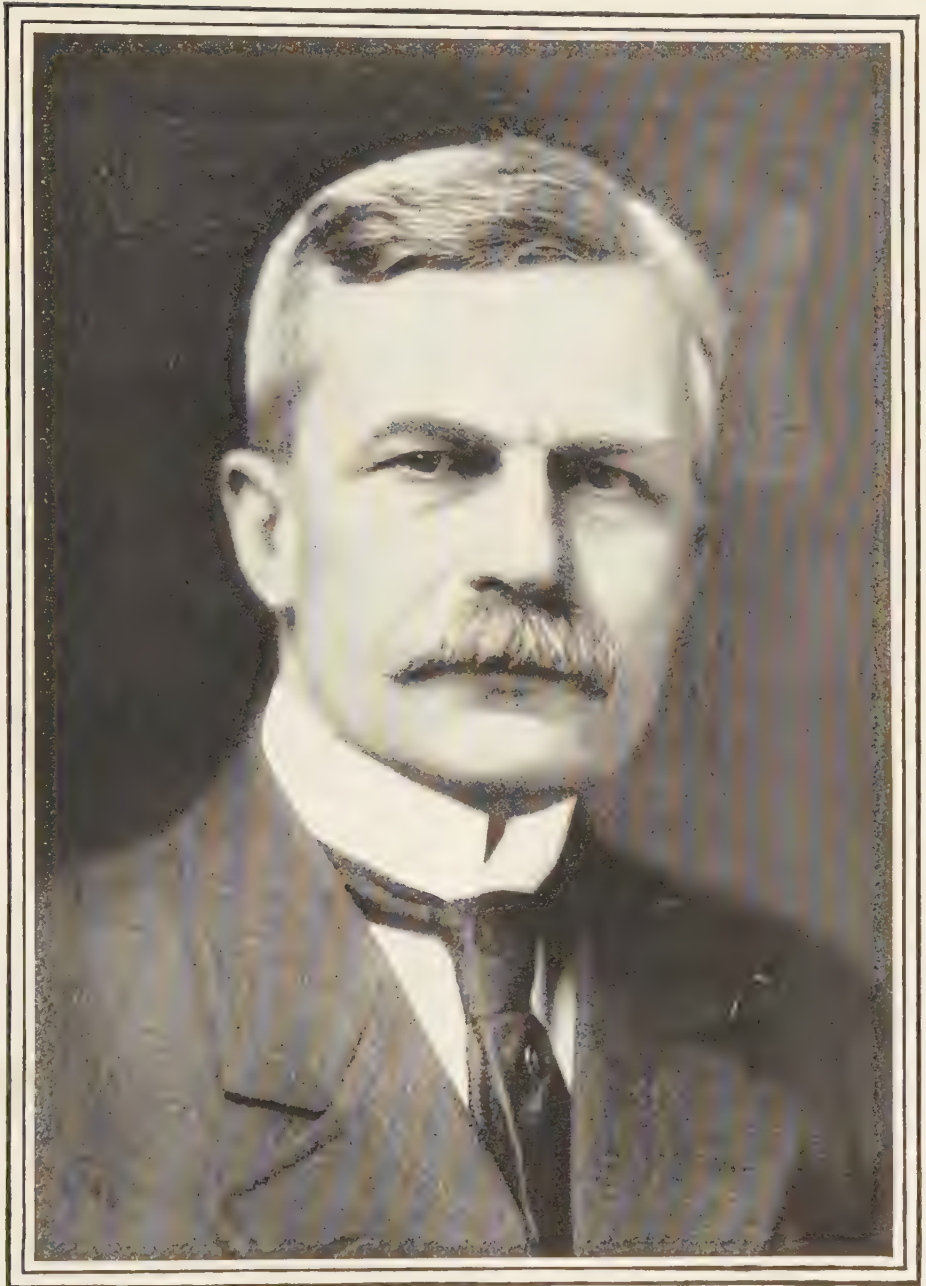
MR. WILLIAM F. WILLOUGHBY.

(A picture of Mr. Durand appeared in the July REVIEW.)

*The
New Order
of Things.* Nagel and North, being both

very strong men, saw their respective positions clearly and logically from their own standpoints. It was quite inevitable that the new order of things should have prevailed. Mr. Nagel, as responsible in a general way for everything assigned to his portfolio, is going to see that the census is properly taken in accordance with the law of Congress and subject to the guidance of nobody except the President alone. He has emphasized the departmental nature of the census work by transferring Mr. E.

Dana Durand from the Bureau of Corporations to the headship of the Census Bureau. Mr. Durand works easily, efficiently, and with unflagging good temper. He belongs to the group of university-trained specialists in the Government's employ, but nobody can call him "academic," as a term of reproach, inasmuch as he has shown himself a thoroughly practical man. He has chosen as his assistant Mr. W. F. Willoughby, also a trained economist of the university type, who has been serving for a number of years as a high official in Porto Rico and who will know how to lay down and enforce proper stand-



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HON. CHARLES NAGEL, SECRETARY OF COMMERCE AND LABOR.

ards of scientific accuracy in the work of securing and classifying the required information. For supervisors of the census throughout the country Mr. Durand has been selecting men on the basis of their especial fitness for the work. President Taft has announced in unmistakable tones that the supervisors are to be chosen regardless of politics, and that the local enumerators in like manner are to be appointed for the sake of getting the work properly done, and not to help out any would-be dispensers of local patronage. Mr. Taft, Mr. Nagel, and Mr. Durand are in thorough accord and are determined to

take the census in a way that will avoid scandal and insure the highest possible degree of accuracy. It is a vast and difficult job; and Mr. Durand and Mr. Willoughby, who have gone from university chairs of political science and economics into the Government's service, will deserve and receive great credit if they carry the thing to a successful end within a reasonable length of time, upon the plans that they are now formulating.

*New
Treasury
Officials.*

It is evident that this administration has no prejudices against young men of scholarly and technical attainments, and that the departments at Washington are to have the benefit of the public spirited services of a good many men who are not merely practical politicians. For example, the Treasury Department is to have the services of Mr. Andrew P. Andrew as Director of the Mint. Mr. Andrew is a teacher of economics at Harvard, who has specialized in the subjects of money and finance and who has during the past year been a working expert for Senator Aldrich and the Monetary Commission. He has every qualification for a successful Director of the Mint. Another new official of the Treasury Department is Mr. R. E. Cabell, who has been made Commissioner of Internal Revenue. Mr. Cabell was made postmaster of Richmond, Va., by President Roosevelt and his efficiency in that office not less than his qualities of character and personality have gained for him the high regard of President Taft and Secretary MacVeagh.

*The Lincoln
One-Cent
Piece.*

There are phases of the work and administration of the Treasury Department that are of popular interest and there are others, perhaps more important, that the people at large do not understand. One of the popular matters has been the appearance of the newly designed one-cent piece with the head and bust of Lincoln taking the place of the long-familiar Indian head. The designer of the new coin is Mr. Victor D. Brenner, who has won great distinction as a medalist. President Roosevelt had seen Mr. Brenner's portrait of Lincoln in low relief and, admiring it greatly, had proposed that it should be adapted for use on the one-cent piece as one way of observing the Lincoln centenary. There was a great scramble for the new pennies as they first appeared last month, and a good many boys made large profits by obtaining quantities of the little coins at the New



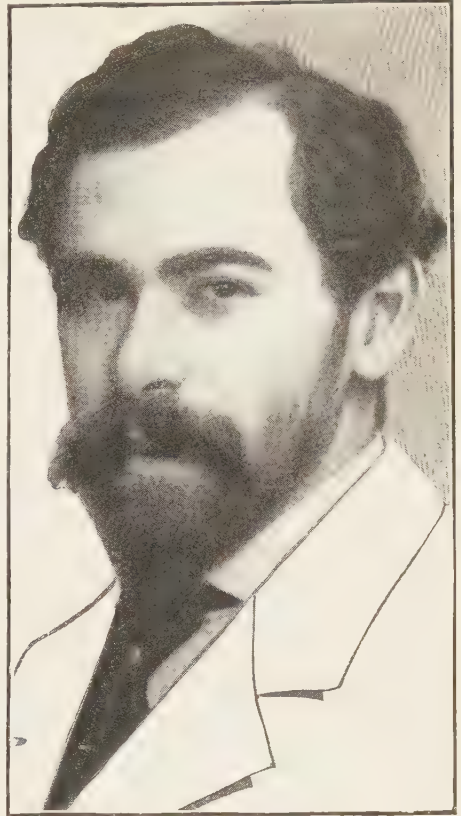
MR. ANDREW P. ANDREW.

York Sub-Treasury and selling them to people who had not yet seen them. An unfortunate incident was the question of propriety raised by the presence of Mr. Brenner's initials in very small letters on the coin. It has been customary to have the initials of designers on our American coins, and those on the penny as it appeared were so small as not to be obtrusive. Owing to criticism, however, it was decided to remove two of the initials, leaving only the letter "B." Opinions will differ as to the merits of the coin. No one will dispute Mr. Brenner's rank as artist and medalist. Many people will agree with us, however, that the new coin lacks strength and distinction, the head of Lincoln being much too small and the lettering on the reverse of the coin far less satisfactory than upon the little coppers which are to be displaced.

*Money
Problems, Small
and Great.*

Another popular Treasury topic has to do with the cleanliness as well as with the designs of our paper money. Secretary MacVeagh has decided opinions upon these matters, and is

proposing to give us in the future smaller bills of simpler and more artistic design. It is certainly to be wished that our bills might either be frequently redeemed or else that they might be cleansed and disinfected from time to time. Much more serious, however, are the problems having to do with the method of issuing our paper money in view of the need of a more scientific and elastic currency. Mr. Aldrich and his associates of the Monetary Commission are at work upon their report and their promised bill, and they have no easy task ahead of them. It is likely to prove hard enough for them to agree among themselves; and then will come the great struggle to bring Congress to an acceptance of their views. Mr. Aldrich favors a central bank of issue, and this would involve a reorganization of the national banking system and of present currency arrangements. There will be strong opposition to this proposed centralization of the issuing function. Among other incidental problems connected with the subject as a whole is that of the interest to be paid upon the public debt. The Government has large outstanding issues of 2 per cent. bonds which hold their place in their investment market because most of them are owned by banks as the basis for the issue of circulating notes under the national banking law. The new method of issuing currency as proposed by Mr. Aldrich would make it unprofitable for the banks to hold these bonds, and the bottom would drop out of the market for 2 per



MR. VICTOR D. BRENNER.

cents. The Government would probably have to increase the interest on these bonds



Photograph by Brown Bros., N. Y.

CROWD OF PEOPLE IN LINE FOR SEVERAL BLOCKS AT SUB-TREASURY IN NEW YORK, OBTAINING THE "LINCOLN PENNIES."

to 3 per cent., which would mean a considerable item of expense. These questions of currency and banking, together with the many questions involved in the administration of the new Payne bill, must give Secretary MacVeagh and his able corps of assistants and counselors the cheerful prospect of a busy year before them. Fortunately, it is much easier to deal with problems of taxation, public revenue, and financial and monetary reform in a period of waxing prosperity than in one of business depression and dwindling revenue supplies.

*Income
Tax
Amendment.*

The first State Legislature to ratify the proposed income-tax amendment to the Federal Constitution was that of Alabama, which gave the proposition a practically unanimous vote in both houses. Forty years ago, when the Constitution was last amended by the States, the white voters south of Mason and Dixon's line had only a nominal part in ratifying the proposed amendments. To-day conditions are reversed in States like Alabama; and a centralized national government has so few terrors for the sons of the "reconstructed" that they hasten to set their approval on the taxation of individuals for federal purposes. It must not be assumed, however, that the income-tax proposition is going through the State capitals with a rush. The Georgia and Connecticut Legislatures adjourned last month without taking action on the amendment, as they were justified in doing, since

their constituents had given no mandate in the matter. Less than one-fourth of the Legislatures will be in session during 1910, so that nearly two years will have elapsed before three-fourths of the States can act.

*The President's
Vacation
and Plans.*

Mr. Taft's vacation at Beverly, long delayed by the tariff session, which had kept him at Washington, began on August 7. He was playing golf within an hour or two after his arrival in Massachusetts, and he has been keeping up his exercise most bravely. Meanwhile he is getting a perspective upon the larger matters of public business that lie ahead, and is holding necessary consultations. He was about to appoint the tariff commission experts as we closed our month's record, and was considering maturely the membership of the Customs Court. His great continental railway journey of 13,000 miles was to begin on September 15 and end on November 10 at Washington. The main plans of the journey were outlined in our pages last month. A remarkable number of interesting public matters will engage the President's attention on this tour, including the Seattle Exposition, visits to great Government engineering and military developments, a meeting with President Diaz, of Mexico, and a trip from St. Louis by water to New Orleans to attend the waterways convention. Mr. Taft will leave the departments running harmoniously and in a high state of practical efficiency.



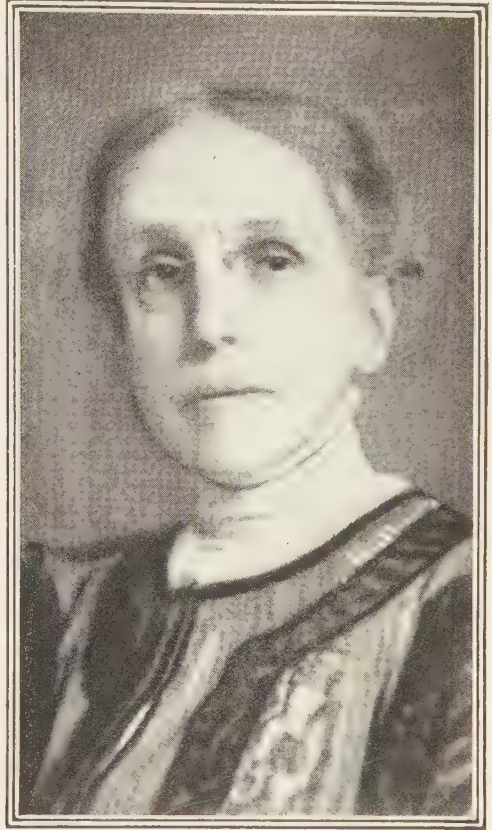
THE HEAVY LINE SHOWS THE MAIN ROUTE OF MR. TAFT'S 13,000 MILE JOURNEY AS NOW PLANNED.

*Referendum
Votes
in Cities*

During the past few weeks there have been a few interesting instances of the growing use of the referendum in American cities. The three-cent fare agitation in the city of Cleveland seems to have been ended, at least for the time, by a decisive vote of the people on August 3 against the granting of a three-cent franchise to a local traction company which had the backing of Mayor Johnson. Portland, Ore., was required to vote on a great number of propositions dealing with a great variety of interests. Among these was the proposed "commission" form of city government, which was rejected by the voters. Kansas City, Kan., on the other hand, voted in July to adopt that form of government, the citizens having become desperate under the evils of ward politics.

*Chicago's
Woman School
Superintendent*

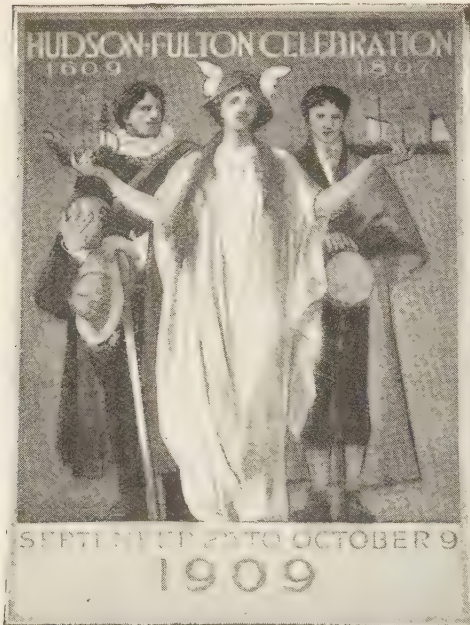
The recent selection of two Chicago women for positions of great responsibility illustrates the changing attitude of the public on the question of the fitness of women for administrative duties. At its annual meeting in June the National Conference of Charities and Corrections, a body made up of the ablest men and women in the country who are specializing in the lines of effort indicated by its name, chose for its president Miss Jane Addams, of Hull House. It was the first time that this eminently useful and aggressive organization had picked out a woman to serve as its executive head, but Miss Addams' qualifications for the office were recognized as exceptional. Very soon we hope to present in this REVIEW something by way of appreciation of the rare qualities that have given renown to Miss Addams and her work the world over. Last month another innovation was afforded by the decision of the Chicago Board of Education to name for superintendent of the city school system Mrs. Ella Flagg Young, an admirably qualified and experienced school executive, who knows the Chicago schools and their needs perhaps as well as any individual can know them. Besides her long and intimate association with the city school system, Mrs. Young's service as principal of the Chicago Normal School and as a member of the Chicago University faculty had revealed qualities of leadership that promised well for her success in the difficult position to which she has been elected. This is the first time that a woman has been made superintendent of schools in any large city.



MRS. ELLA FLAGG YOUNG.

*Hudson-
Fulton
Celebration.*

The two New York committees having in charge the arrangements for celebrating the tercentenary of Henry Hudson's discovery of the river that bears his name and the centennial of steam navigation on the same river wisely decided to combine their efforts and bring about through co-operation a twofold celebration truly worthy of such anniversaries. Robert Fulton's *Clermont* made its first trip up the Hudson in 1807, and it was at first intended that the centennial year should be marked by some special commemoration, but the postponement of two years doubtless insures a more general participation and a wider interest in the celebration, while the Hudson anniversary considered by itself will be international in character. The little *Half Moon*, a replica of Hudson's ship, constructed by the people of the Netherlands as their contribution to the pageantry of the occasion, has already arrived, and the *Clermont*, reproduced from the century-old model, will be ready to take part in the river pa-



Copyright, 1909, by the Hudson-Fulton Cel. Com.

POSTER (REDUCED) HUDSON-FULTON CELEBRATION.

rade that will begin on September 25 and continue through the first week of October. It was announced last month that eighty war vessels would assemble for the cruise up the river from New York to Newburgh on October 1. Fifty-three of these will be detailed from the Atlantic Squadron of the United States Navy, and others will be sent by England, Germany, France, Italy, the Netherlands, Mexico, and the South American republics. It will be the largest fleet of an international character ever gathered in the world's history, and, although made up of war vessels, will fitly commemorate the achievements of the intrepid navigator whose voyages did so much for the promotion of the arts of peace three centuries ago. Not only New York, but every city and hamlet as far north as Troy, will have its share in the celebration.

Across the
Channel
by Aeroplane.

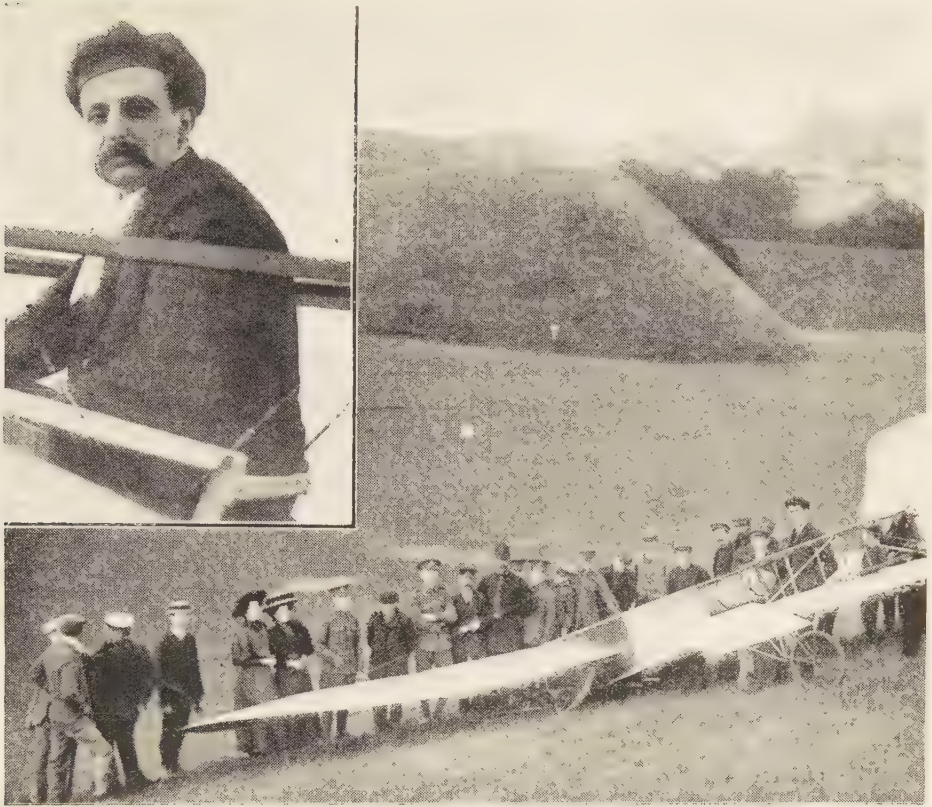
The science of aerial navigation continues to progress rapidly, and each month sees new records and more remarkable feats.

The most sensational event of July in this field was the safe accomplishment of the crossing of the English Channel by aeroplane, an event which John Bull has been anxiously expecting for many months. Aviators have long been planning this flight, English eyes have been strained toward the French coast for a sight of the first comer by air, and statesmen also have been speculating as to the political results of such a trip; and at last the trip has been made. A Frenchman, M. Bleriot, starting from French soil, on a French aeroplane, successfully crossed the twenty-one miles of choppy sea that has separated Albion from her ancient enemy from time immemorial, and after a flight of thirty-seven minutes landed safely near the cliffs of Dover, receiving the warm congratulations of Frenchmen and Britons alike. M. Bleriot, after a trial spin, started in his monoplane at 4.35 A.M. on Sunday morning, July 25. We quote a part of his own picturesque description of the flight:

I begin my flight steady and sure toward the coast of England. I have no apprehensions, no sensations,—*pas du tout*,—not at all. The *Escopette* [a French torpedo-boat assigned by the government to follow M. Bleriot as a precaution in case of accident] has seen me. She is driving ahead at full speed. She makes perhaps twenty-six miles an hour. What matters it? I am making at least forty-two miles an hour. . . . Ten minutes are gone. I have passed



THE COURSE FOLLOWED BY M. BLERIOT IN HIS FLIGHT ACROSS THE ENGLISH CHANNEL ON JULY 25.



M. BLERIOT AND HIS MONOPLANE AFTER LANDING AT DOVER FROM HIS CROSS-CHANNEL FLIGHT.

the destroyer, and I turn my head to see whether I am proceeding in the right direction. I am amazed. There is nothing to be seen,—neither the torpedo-boat destroyer, nor France, nor England. I am alone. I can see nothing at all. . . . I fly westward and reach Shakespeare Cliff. I see an opening in the cliff. . . . Once more I turn my aeroplane, and, describing a half-circle, I enter the opening and find myself again over dry land. . . . At once I stop my motor. . . . In two or three seconds I am safe upon your shore. Soldiers in khaki run up, and policemen. Two of my compatriots are on the spot. They kiss my cheeks. The conclusion of my flight overwhelms me. Thus ended my flight across the Channel.

M. Bleriot is a graduate of the French Polytechnique, the famous engineering school, and has already made many successful flights and won numerous prizes. As noted in our July issue, he was also one of the recipients of the Osiris prize awarded for the greatest advance achieved in science. His Channel feat won for him money prizes aggregating \$7500, as well as the presentation of gold medals by several aero clubs. Hubert

Latham, another French aviator ambitious to make the Channel crossing, attempted the trip a few days after Bleriot's flight and succeeded in getting within two miles of the English coast when his motor stopped and he dropped into the sea. French aviators have been especially industrious, and they are constantly making records of one kind or another. One of them, Roger Sommer, on August 7, in a Farman biplane, made a flight of 2 hours and 27¼ minutes. This is the endurance record for an aeroplane, and exceeds Wilbur Wright's flight of 2 hours and 20 minutes made in France on December 31 last. Henry Farman, the English aeronaut, on July 22, flew from Chalons to Suippes in France, a distance of 40 miles, in 1 hour and 5½ minutes.

*The Wright
Brothers at
Fort Myer.*

American interest in aviation is naturally centered largely on the performances of the Wright brothers, and the flights made by them at



Photograph by the Pictorial News Co.

THE WRIGHT BROTHERS' AEROPLANE IN ITS FLIGHTS AT FORT MYER, NEAR WASHINGTON, D. C., LAST MONTH.

Fort Myer last month in fulfillment of the Government tests attracted a great deal of attention. The War Department specifications called for a heavier-than-air machine capable of making an endurance flight of one hour with a passenger; a cross-country speed test of ten miles with a passenger, the speed to be not less than 38 miles an hour, and a further test comprising the carrying of sufficient fuel for a flight of 125 miles. The price to be paid for the aeroplane meeting these conditions was \$25,000, with a bonus of \$2500 for each mile in excess of forty attained in the trial flight. These conditions were all successfully met by the Wright brothers. On July 27, Orville Wright, carrying Lieutenant Lahm with him in the machine, made the record flight for an aeroplane carrying two men. The time was 1 hour, 12 minutes, and 36 seconds. A few days later,—on the 30th,—Mr. Wright made a successful cross-country flight of 10 miles, with Lieutenant Foulois as passenger. The direction taken was over rough and woody country, to Alexandria, Va., and back, the machine rising at times to a height of 400 to 500 feet. The speed attained aver-

aged over 42 miles an hour, thus winning for the inventors a bonus of \$5000.



MR. HUBERT LATHAM.

(The French aviator who almost succeeded in duplicating Bleriot's cross-Channel flight.)

*Other
Aeronautical
Activities.*

This cross-country flight of ten miles was surpassed in distance by Mr. Charles F. Willard, who flew twelve miles last month in a Curtiss biplane, although the country covered was not as rough as that included in the Wright flight. Mr. Willard is a pupil of Mr. Glenn H. Curtiss, the American aeronaut, who took part in the races of the "Week of Aviation" at Rheims, beginning on August 22, in which monoplanes, biplanes with tails, and biplanes without tails, as well as dirigible and spherical balloons, to the number of forty-six machines, were entered. Having tested the Wright aeroplane and purchased it, the American Government is the first to secure an aeroplane for the use of its War Department, although several European governments are becoming actively interested in this kind of flying machine. Orville Wright is now in Germany with a view to selling some of his aeroplanes to the German government. He will make a series of public

flights in a machine of his type "made in Germany," at the Tempelhof Parade Ground, just outside of Berlin, where the Emperor will probably be a spectator. Count Zeppelin is scheduled to make another long flight with his dirigible balloon, this time going completely from Friedrichshafen to Berlin, a journey of about nine hundred miles, which he came within seventy miles of making during his famous flight at the end of May. The expected meeting between Orville Wright and Count Zeppelin at Berlin will, no doubt, result in an interesting interchange of opinion on the subject of aerial navigation, particularly from the standpoints of the two different types of flying machine which these famous inventors represent.

*Wellman
Starts for the
Pole.*

Closely connected with the subject of aerial navigation is the fresh attempt of Walter Wellman to reach the North Pole in his huge dirigible balloon, the *America*. For four years Mr.



JOHN BULL: "I was never made for flying."

From the *Herald* (New York).



MAJOR-GENERAL LEONARD H. WOOD, COMMANDING THE DEPARTMENT OF THE EAST, AND CHIEF UMPIRE IN THE "MIMIC WAR GAME" THAT ENDED AUG. 20.

Wellman has been preparing for this journey, and although a start was attempted in 1906 and again in 1907, conditions were not favorable on these occasions and the trip was postponed. Mr. Wellman planned to try again this year, however, and having made all due preparation and gotten his great balloon ready, he sailed with a favorable wind from Spitzbergen on Sunday, August 15. Mr. Wellman's Arctic airship is the second largest of its kind ever built, with a lifting capacity of about ten tons. It carries a crew of three men, 6000 pounds of gasoline for the engines, a food supply for a year,

and sledges, dogs, and a lifeboat, for land and water travel. Mr. Wellman estimated that with favorable conditions the Pole could be reached from Spitzbergen in from three to five days. He had sailed only thirty-two miles from Spitzbergen, however, when the guide-rope, to which was attached 1000 pounds of provisions, parted suddenly and the voyage had to be abandoned.

Much attention was attracted last month to a series of military maneuvers in New England undertaken jointly by the regular army and

*Our
Mimic War
Game.*

troops of the national guard from several Eastern States. In all, about 16,000 men participated in engagements occupying four days. The city of Boston was invested by a besieging army of 9000 men and defended by 7000. The invading troops gave an interesting object-lesson in the modern method of provisioning an army, the base of supplies being moved each day with the advance of the troops. It is believed that these maneuvers will exert a most helpful influence on the training of the national guard. We hope to present next month a somewhat detailed account of the movements in this war game, with an explanation of the strategic points and the technical military tests involved.

From a strike of coal workers in the Nova Scotia mines of the Dominion Coal Company, which began late in July, an important labor situation has developed in the Dominion of Canada. Coal mining is one of Canada's great industries, and the strike itself resulted in a temporary tieup of the entire business. More important, however, than the actual strike has been the point developed by the opposition between the Canadian labor organizations and the American labor unions on one hand and the subordinate Canadian unions, which are made up largely of foreigners, on the other. The chief Canadian labor organization, which is affiliated closely with the American Federation of Labor, is known as the Dominion Trades and Labor Council. There are, however, in Canada two other organizations of workmen,—the Canadian Federation of Labor, composed largely of French Canadians, and the Provincial Workman's Association, of Nova Scotia. The last named has a large number of Belgians, Italians, and other foreigners in its membership. For many years there has been evident international influence in Canadian strikes, and the recent situation was significant because it sharply defined the issue between two radically different views: those of the American Federation of Labor and the Dominion Trades and Labor Council, that "from an industrial standpoint the labor interests of the continent are one and should know no national boundaries," and the attitude of the Canadian Federation of Labor, which is strongly opposed to internationalism in any form. It seems probable as we go to press with this number of the REVIEW that the special strike in question will not be effective, public opinion being rather inclined

to go against the mine workers for their alleged submission to "American domination."

*Canadian
Opinion on the
Payne Tariff.*

In an editorial summary of the views of its correspondents all over the world regarding the effect of the Payne Tariff Law on foreign industry and commerce, the London *Times* recently made the impressive and rather surprising statement that since the first publication of the bill last March "the British and Canadian diagnosis of the symptoms has been more correct than it has been in America." The German and French attitude toward the new tariff is alluded to elsewhere. In Great Britain, says the *Times*, "trade and commerce will receive very little benefit from the revision." Canada, if we are to take the verdict of some of her representative journals, has been severely hit in some of her more important industries. According to the leading journals printed in English in the Dominion, the new tariff bill is a plain indication that in the future (we quote from the *Toronto Globe*) "the United States is not going to purchase anything from Canada that she can possibly produce at home." Most of the journals devote considerable attention to the retaliatory attitude on wood pulp, regarding it as a "stroke against Canada," although, as the *Toronto Globe* says, this will "probably lead to the prohibition of the export of wood pulp from Canada with the object of building up the paper industry of the Dominion."

*Latin-
American
Happenings.*

The election of new presidents in Colombia and Venezuela, the beginning of the presidential campaign in Mexico and the continued strained relations between Argentina, Bolivia, and Peru over the decision in the boundary dispute between the two latter countries were the subjects of most interest to the world in general last month in the history and activities of Latin Americans. The opposition in Colombia to General Reyes, already alluded to in these pages, arising from that statesman's position with regard to the Colombian-Panaman-American boundary treaty, resulted in General Reyes' resignation. On August 4 Dr. Gonzalez Valencia was elected president by the National Congress to fill the unexpired term of General Reyes. Dr. Valencia immediately appointed an entirely new cabinet. In Bolivia the first part of August was marked by the retirement of President Ismail Montes, who was strongly opposed to

the boundary award made by Argentina. His successor, Señor Elidore Villazon, was inaugurated on August 12. Señor Villazon is believed to favor acquiescence in the Argentine decision, although it has been unfavorable to Bolivia.

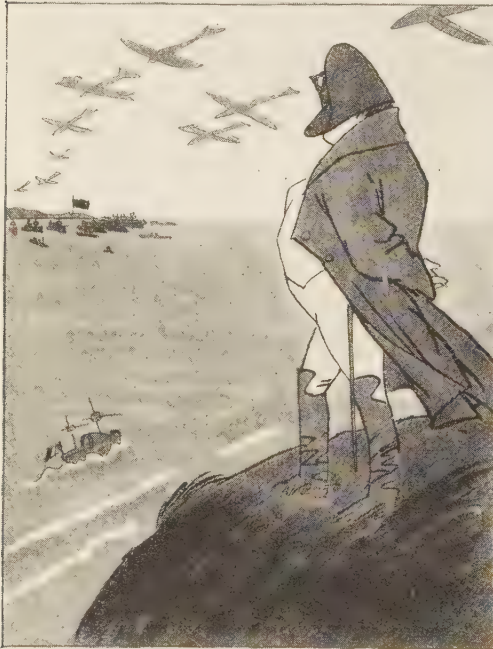
*British Politics
of the
Month.*

The questions uppermost in the minds of the British people during the past few weeks have been "What will the Lords do with the budget?" "What effect will the actual flight across the British Channel by the French aeroplane of M. Bleriot have upon British insularity?" and "What measure of success awaits the new military plan formulated and discussed at the Colonial Conference on Imperial Defense?" It is generally held by politicians of all parties that the Peers will do all the harm they dare to the budget short of actually throwing it out altogether. Of course the flight of the daring French aeronaut was not a record one for either distance covered or time spent in the air. Its sensational significance lies in the fact that for the first time in history a for-

eigner landed in Britain by a route which the British navy was powerless to obstruct.

*A
Reconstructed
British Army.*

Lord Roberts' plan for imperial defense, discussed and eventually adopted at the Colonial Conference, held in London during the first days of August, provides for what will amount to universal conscription. The same method of training and organization adopted and followed in all the colonies as well as in the United Kingdom will, in Lord Roberts' judgment, enable the Empire in time of war to put in the field forty-six divisions, which will just equal the strength of the twenty-three army corps of Germany on a war footing. The delegates at the Colonial Conference of the four self-governing colonies, Canada, Australia, New Zealand, and the newly constituted state of South Africa, unanimously adopted the Roberts scheme. Among other topics which engaged the attention of the British people during July and August were the passage of the second reading in the Commons (on August 16) of the Union of South Africa Bill, providing for the official inauguration of the Union of the United States of South Africa; the publication of the report of the special commission exonerating Admiral Sir John Fisher from blame in the charges brought against him by Lord Charles Beresford; the visit, made in July, by Czar Nicholas of Russia to King Edward, and the great review in the Thames last month, during which almost the entire British naval strength passed in review before the British King.



THE LATEST FRENCH INVASION OF ENGLAND.

SHADE OF THE GREAT NAPOLEON (watching the Bleriot aeroplane, his own ships, and the British navy, and sadly recalling his own disastrous attempt to invade England in 1803): "Alas, Bleriot, you have come too late."

From *Le Lirc* (Paris).

*France's
New
Premier.*

It is one of the anomalies of the French parliamentary system that the resignation of a ministry does not necessarily, or even generally, mean the accession to power of the opposition. The only necessary result of a cabinet fall in France is the resignation of the premier. The cabinet may be reconstructed by a simple shifting or rearrangement of portfolios, with a new premier of the same political faith as the outgoing minister. The result of Clemenceau's resignation late in July was merely another Clemenceau ministry with Clemenceau left out. M. Briand, the new premier, has been the former prime minister's chief lieutenant and aide, and stands for the same ideas in politics. He is a practical man of decided force. In his own words, he is "a man of realization." It was he who engineered, through the Deputies three years ago,

the Church Separation law. He is generally known as a Socialist, but either because France is such a highly socialized state or because M. Briand's socialism is of itself so mildly conservative in form it is a significant fact that his advent to power has not affected in any discernible way the steadiness of securities on the French market.

*The
Reconstructed
Cabinet.*

The cabinet as reconstructed consists of: Aristide Briand, premier, whose official titles are President of the Council and Minister of the Interior and Public Worship; M. Louis Barthou (Justice), Stephen Pichon (Foreign Affairs), Georges Cochery (Finance), General Jean Jules Brun (War), Admiral Boué de Lapeyrère (Navy), Gaston Doumergue (Public Instruction), Alexandre Millerand (Public Works, Posts, and Telegraphs), Jean Dupuy (Commerce), Joseph Ruau (Agriculture), Viviani (Labor), and Trouillot (Colonies). In his "introduction" speech before the Chamber of Deputies on July 27 Premier Briand announced that the remainder of the present session of parliament would be devoted to passing the budget and the income-tax bill. The premier's declaration commits the new government to the foreign policy of the outgoing cabinet. A vote of confidence was taken at the close of Premier Briand's speech, the figures being 306 to 46. Other topics inter-



M. ARISTIDE BRIAND, THE NEW FRENCH PREMIER.
(Photographed in his office in the Elysée Palace.)

esting the French people during the past few weeks have been the visit of Czar Nicholas, of Russia, to Cherbourg, the concern of French merchants and commercial bodies in the new American tariff, and the sensational flight of M. Louis Bleriot across the British Channel.

*The
Troubles of
Spain.*

By far the most critical period in Spanish history since the Iberian kingdom's war with the United States began in the middle of July with the serious revolutionary outbreaks against a vigorous prosecution of the long drawn out Moroccan campaign. Spain, it will be remembered, holds a few points on the Mediterranean coast of Morocco. She occupies other points as "mandatory" of combined Europe, according to the terms of the Algeciras Convention. From her position as the nearest European nation to Africa, with the Moroccan coast almost within sight of her shores, Spain has a greater stake than any other nation of Europe in the fate of the



THE SPANISH FANDANGO OF 1909.

(Between the war in Morocco and the revolutionary outbreaks at home it is not for joy that the Spanish people are dancing this summer.)

From the *World* (New York).



DON CARLOS, THE LATE BOURBON PRETENDER.

Sheriffian Empire. Since the agreement of combined Europe at Algeciras the Spanish Government, having grave problems of an economic nature to face at home and being perennially short of funds, has acquiesced in France's position as the predominant power in Moroccan affairs. Of the points occupied by Spain in Morocco, the principal ones are Ceuta, a stronghold opposite Gibraltar, and Melilla, a point near the Algerian frontier. During the past few years Spanish military forces have contented themselves with maintaining their power in these two points, leaving to France the general policing of the country.

*Moor vs.
Spaniard
Again.*

The Mediterranean shore of Morocco, known as the Riff coast, has never been actually subdued by Spain, and constant clashes with the natives have marked Spanish occupancy. Behind

Melilla is a mountain region occupied by fanatical Arab tribes, chief among them being the Kabyles. Early in July a party of Spanish workmen engaged in repairing a bridge near Melilla were attacked by some natives and in the fracas several Spaniards were killed. While the Riffians were preparing to burn the bodies of their victims the Spanish governor appeared with a force of regular troops, and, although he defeated the natives in a spirited engagement, he was forced to retreat. This partial reversal of Spanish influence revealed the weak condition of Spain's forces in the region, and the necessity was at once seen for dispatching a large force to regain and hold the ground that had been lost. General Marina was sent to take charge of all the Spanish forces and to head a punitive expedition, to which the Moors replied by attacking all the garrisons upon the edge of the strip of country inhabited by Europeans. It is estimated that from 40,000 to 50,000 natives were in arms during late

From the *Sphere* (London).

THE LOCATION OF SPAIN'S PRESENT TROUBLES AT HOME AND ABROAD.



DON JAIME, THE NEW SPANISH PRETENDER.
(Son of Don Carlos and at present a colonel in the Russian army.)

July and early August, all actively engaged in attacking Spanish outposts.

*Why Spaniards
Oppose
the War.*

Early in August General Marina, finding the troops at his command utterly inadequate to the task assigned them, asked for additional forces amounting to 40,000 men. The ordering out of these troops for service in Morocco instantly precipitated a popular upheaval of sanguinary and revolutionary proportions throughout Spain, but particularly in Catalonia. The war in Morocco has always been extremely unpopular with the people of Spain not only because it has cost a great deal of money and the lives of many soldiers and sailors, but because, as it is now generally charged, Spain's military activities on the Moroccan coast have been exercised largely, if not solely, in the interest of certain corrupt commercial schemes. Several mining concessions (so we are informed by the Fez correspondent of the *London Daily Chron-*

icle) held by members of Spanish noble houses were in danger, and, according to this authority, just as a timber concession in Korea caused the actual collision between Japan and Russia, the refusal of the Sultan of Morocco to confirm these mining concessions brought about bloodshed on a large scale on the Riff coast. It should not be forgotten in this connection that the Riff tribes, while nominally subject to the Sultan of Morocco, are really independent. The mining concessions in question are reported to have been given by a pretender to the Moroccan throne, and Mulâi Hafid has announced that he positively declines to ratify concessions made by a rebel actually under arms against his authority.

*Plight
of the
Spanish.*

With all this knowledge or rumor circulating throughout Spain it is little wonder that the announcement of the expedition of 40,000 men, drawn from all parts of the kingdom, to Morocco should have precipitated the riots and anti-Government demonstrations. Moreover, a larger proportion of the Spanish reservists are married and have families than is the case in other European armies, and the general poverty of the Spanish population would leave these families, in case of the death of the head of the house, in want and destitution. It was the wives, sisters, and daughters of the reservists who made up



SEÑOR DON ANTONIO MAURA, PREMIER OF SPAIN.



Photograph by Paul Thompson, New York.

GENERAL MARINA, COMMANDING THE SPANISH FORCES IN MOROCCO, LISTENING TO A MOORISH SPY IN HIS SERVICE.

cratic and "Separatist" in spirit and at odds with the central government. The army has been particularly unpopular in this section of Spain, which is the most progressive economically, and the laborers and factory hands of Barcelona not only refused to go with the reserves, but actually barricaded the roads and tore up the railway tracks so that the men already enrolled could not proceed to the front.

For several days late in July riot and pillage, murder and outrage of the most horrible kind devastated Barcelona, during which, on the one hand, the garrison troops refused to fire upon

a surprisingly large proportion of the mobs which rioted in Barcelona and other Catalan cities against the sending of the troops. The Catalonians have always been democratic the people, and, on the other, the populace attacked the regulars and burned and looted the monasteries and convents. Martial law was proclaimed throughout the kingdom and



Photograph by Paul Thompson, New York.

SPANISH SOLDIERS CARRYING IN THEIR WOUNDED AFTER THE FIGHTING WITH THE MOORS AT MELILLA.

severe repressive measures at once put into effect. Owing to the fact that the Spanish press censorship in time of popular uprising is more strict than that in any other European country, it has been difficult, even weeks after the occurrences, for the outside world to know the exact truth. The unfavorable status of the Moroccan war has undoubtedly been used by agitators for the purpose of political propaganda, and it is being freely charged that the new pretender to the throne, Don Jaime, head of the Carlist faction, had hoped to ride into popular favor on the wave of popular disapproval of the war.

*Gravity
of the
Situation.*

It is a bad state of affairs. While Spain is at war with the Moors in Morocco the Spanish Government has to go to war with its own people because they do not approve of the war with the Moors. On another page this month (300) Professor Guijarro, of the University of Madrid, sets forth calmly the extremely difficult political and economic condition of Spain to-day. There is undoubtedly an economic awakening in the kingdom, and it is probable that Morocco will be needed for the industrial expansion which will follow the economic revival. The Moorish country is, indeed, the logical field for Spanish capital to find employment in its mines, agriculture, and commerce. The Madrid government has a very intricate problem to solve, and the young King, who, though perhaps over-given to sport, is patriotic and ambitious, has before him a situation that might baffle a much older and more experienced ruler. The question has apparently proved too much for Premier Maura, who has repeatedly endeavored to resign his office. Señor Maura is an able lawyer and a man of personal probity. He believes thoroughly in the need for liberal economic reforms, but has not shown himself strong enough to successfully combat the reactionary tendencies of the old régime, which still clings tenaciously to power in Spain.

*Problems
Before the
New German
Chancellor.*

From the comments in the German papers on the appointment of the new Imperial Chancellor as well as from the expressions of opinion upon the character and equipment of Dr. von Bethmann-Hollweg, it is evident that the country as a whole is satisfied with the man whom Kaiser Wilhelm has chosen to succeed Prince von Bülow. Judgment as to his abilities for administration, particularly with

regard to foreign policies, is, of course, reserved, but there is evident a general satisfaction at the appointment and willingness to let the new premier have the fullest, freest chance to indicate his policies. There has now become evident one reason why the ex-Chancellor was not anxious to dissolve the Reichstag. Although it is an "off year," the by-elections in Bavaria and the Palatinate during the first part of August resulted in strong anti-government victories. In one division the Social Democrats by a large majority of more than 900 votes captured a seat in the Reichstag which the National Liberals had held for more than forty years. The general results of these elections were a Socialist gain of more than 2000 votes and a loss to the National Liberals and Clericals of more than 4000. The result of this voting may be taken as an indication of popular hostility to the new taxes. German commercial circles are dissatisfied and resentful in their comments on the new tariff law of the United States. The general point of view seems to be that the most favorable treatment possible must be conceded by Germany to the United States, since the former is so dependent on our trade for many of its



THE DOWNFALL OF MONARCHS AND MINISTERS.

(In the "falls" of Sultan Abdul Hamid, Shah Ahmed Riza, Chancellor von Bülow, and Premier Clemenceau, the cartoonist of *Kladderadatsch* sees a tendency of the present political year worth pondering over.)



KING GUSTAV, OF SWEDEN.

(Who, though accused of reactionary, "anti-labor" tendencies, was very active last month in endeavoring to bring about peace in the Swedish general strike situation.)

staple raw materials. The agrarian leaders and journals, on the other hand, warn the new Chancellor that the success of his career will be determined by the firmness he now shows "in dealing with the exorbitant demands of the Yankees."

For more than one reason American educational circles have been interested in the recent celebration of the five hundredth anniversary of the University of Leipzig. For several decades Leipzig was the German University most attractive to American students, and even today it is very largely attended by young men from the United States. For another reason the old university has a timely interest to the American people. During the celebration an honorary degree was conferred, in his absence, on ex-President Roosevelt. The news, which was telegraphed to Mr. Roosevelt in Africa, contained a significant quota-

tion from the presentation address, as follows:

Ready for war, courageous, and yet a promoter of peace; a man endowed with all statesmanlike qualities; an honor to the civic crown; one with ready sympathy with and understanding of the German spirit; the ex-President of the United States, Theodore Roosevelt.

Visiting delegations came from all over the world, President Schurman, of Cornell, speaking for American universities and university life. A very significant address was made by Professor Mahaffy, of Dublin University, on behalf of the institutions of England and her colonies, in the course of which he said: "If the day arrives on which you hope to conquer our mother country, come and be welcome; but conquer us by science, which costs no blood." The University of Leipzig was founded in 1409. It owes its origin to the removal of a large number of German students in that year from Prague, Bohemia, as a consequence of disputes between the Bohemians and Germans.

*Labor
and Capital
in Sweden*

The relations between labor and capital in Sweden have been strained almost to the breaking point for a decade. The Swedish social order is founded on essentially an aristocratic basis, being the outgrowth of the long continued predominance of agriculture. The rapid growth of manufacturing and other industrial interests, however, during very recent years has disturbed the old social order. With increasing frequency members of the Swedish Diet have represented industrial constituencies and the merchant class has had a rapidly growing influence in shaping the political and economic policies of the kingdom. The late King Oscar was a most democratic and liberal man. His successor, King Gustav, is generally believed to be conservative, almost, if not quite, to the point of reaction. Therefore, while the government since King Oscar's death has been veering in the direction of reaction, the progress of industrialism has gone on and the capitalist and workman have been drawn further apart.

*A
General
Strike.*

Early in August the Swedish labor leaders, believing that they had gathered strength sufficiently to show their hand, ordered a general strike. They had been angered by the open threat of a lockout by the powerful association of manufacturers. The strike involved more than 300,000 workers, or more than one-

twentieth of the entire population of the country. The Allied Trades Unions which engineered the strike, declined to accept the decision rendered by the Government Board of Arbitration, a decision which was essentially a compromise between the opposing parties, and which was accepted by the Employers' Association. All government employees, including workers on railways and in the post-office, joined in the strike. Although no violence or bloodshed has been reported, for more than a week Stockholm, the capital, was tied up and for two days ran short of provisions, so that a famine was threatened. The labor parties in both Norway and Denmark sent contributions to the Swedish strikers. At one time the strike was so general that the capital was in darkness, no gas or electric light being obtainable, and even the work of the gravediggers and undertakers was done by the soldiers. King Gustav called the leaders of both parties before him, but could not persuade them to agree or to accept government arbitration. After ten days the railroad employees began to return to their work, and it was apparent that the strike would eventually collapse of its own weight. The government is preparing an important new labor law for submission to the Diet at its next session.

*Forcing Crete
to Remain
Turkish.*

For less than a month the little island of Crete was left by the four so-called "protecting powers,"—Great Britain, Russia, France, and Italy,—to enjoy its dream of union with Greece. On July 27, in accordance with the plan agreed upon last year, and already recounted in these pages in detail, the gendarmerie of these powers evacuated the island and left the Cretans to administer their own government and police their own territory. For ten years, it will be remembered, indeed since the close of the Turko-Greek War, these four powers had guaranteed Cretan autonomy under the nominal rule of the Turkish Sultan, but with a Christian Governor, Alexander T. Zaimis, who was known as High Commissioner, appointed by the Greek King. In October of last year, after the Austrian and Bulgarian coups in the Balkans, Crete informally annexed itself to Greece. The protecting powers withheld their assent to this move, but ever since that time the Cretans have flown the Greek flag, administered Greek law, and acted as if they were actually Greek subjects.

*Lowering
The Greek
Flag.*

A very large proportion of the inhabitants of the island are Greeks, and the authority of Turkey has been for years only of the most shadowy kind. The Young Turk régime at Constantinople, however, has always regarded the retention of Crete, even at the expense of a war with Greece, as absolutely necessary to its continued ascendancy at home, particularly in view of the popular resentment against the new government because of the loss to Turkey and Bulgaria and the two provinces last year annexed by Austria. During the first week in August several notes passed in rapid succession between the foreign offices at Athens and Constantinople, and at times diplomatic relations were on point of rupture. The Greek government, however, maintained a perfectly correct attitude, and on August 18 at the earnest solicitation of the Porte a party of sailors from the warships of the four protecting powers landed at Canea and hauled down the Greek flag from the bastion of the fort. The feeling in favor of annexation has been so strong in both Greece and Crete that it will be necessary for the foreign gendarmes to remain indefinitely on the island.



WHAT WILL BE THE FINAL FATE OF CRETE?

THE FOUR "PEACE" POWERS: "Look out, young man, we may have to pull away your chair after all."

From *Kladderadatsch* (Berlin).



THE TWELVE-YEAR-OLD BOY WHO HAS SUCCEEDED HIS FATHER AS SHAH OF PERSIA.

(Mohammed Ali Mirza, Shah of Persia, who succeeded to the Peacock Throne on the death of his father, in January of 1907, formally abdicated,—or perhaps one should say was deposed,—in July. He has been succeeded by Sultan Ahmed Mirza, who, although not the eldest son of the ex-Shah, was the heir-apparent, the mother of his elder brother not being a Kajär Princess. The new Shah, who was proclaimed under the title of Ahmed Mirza, with Azad-ul-Mulk, head of the Kajär tribe, as Regent, is but twelve years old. He wept bitterly when the moment came for him to leave his predecessor on the throne and his mother, and, says the *London Times*, "it required a stern message to the effect that crying was not allowed in the Russian Legation before he dried his eyes.")

The Baby Rulers of Asia.

A French political writer in the *Revue des Deux Mondes*, in a study of the progress of constitutionalism throughout the Orient, points out the significant fact that at present the destinies of more than 400 millions of people in Asia are nominally under the control of two children,—the present Emperor of China, Hsüan-t'ung, who rules, through a regent, over more than 400 million, and the new Shah of Persia, Ahmed Mirza, who is a lad of only twelve. His government is also conducted through a regent, his uncle. Ahmed Mirza seems to be a mild-mannered, normal lad of ordinary intelligence and affectionate disposition. The entire world felt more than a perfunctory interest in this boy

last month when it was learned that he became frightened at the ceremonies of state and ran from the palace weeping, begging to be taken to his parents. The ex-Shah, his father, who is still under Russian protection, is to receive a pension from the existing government.

The Sugar Scandal in Japan.

It is not a cheerful or encouraging picture of national prosperity and progress that is presented by the Japan of the last two months. While the ninth "Financial and Economic Annual," just published by the Japanese Government, declares that national affairs have returned to their normal condition, there is also much truth in the other statement found elsewhere in this publication that Japan is now facing the consequences of "reaction from the sudden rise and expansion of enterprise" which followed the termination of the Russo-Japanese War, as well as the "stagnation of Chinese export trade and the effect of the panic in the American markets." A startling and sensational indication of unsuspected commercial and political corruption was given in July by the conviction of twenty-three members of the Imperial Diet for complicity in the "graft" revealed in the recent sugar scandal. Five directors of the Great Japan Sugar Company were at the same time convicted of bribing the nation's representatives. An unusual but encouraging feature of the trial was the opinion of



THE DAY OF "YOUNG ASIA."

(*Fischetto*, Turin, points out the fact that nearly one-third of the human race are to-day under the nominal rule of two children: the baby Emperor of China and the boy Shah of Persia.)



NEW TRADES FOR RETIRED ORIENTAL DESPOTS.

(*Borsszem Jankó*, of Budapest, the leading Hungarian comic journal, publishes this on the suggestion,—so it says,—of a Persian artist.)

the newspaper press, which insisted that the eminence of the offenders should call for additional severity of punishment, "since their crime was aggravated by indifference to their duty as moral examples." The court took this view and the sentences were made accordingly severe.

"The Sino-Japanese Railway Dispute."

The growing suspicion and hostility between the Chinese and Japanese governments and peoples are emphasized by the dispute over the Antung Railway. This line, running from Antung to Mukden (a distance of somewhat less than 200 English miles), is to be reconstructed by the Japanese, in accordance with what they claim are their rights, set forth in the Peking Treaty of 1905, which says: "China agrees that Japan has the right to improve the Antung-Mukden Railroad so as to make it fit for the conveyance of commercial goods of all nations." This is interpreted by the Japanese to mean an authorization to widen the gauge to standard and generally to alter the construction. China, however, objects to this as too radical a change and as giving Japan too much "strategic advantage" in Manchuria. It was reported late last month that China had finally agreed to permit Japan to go on with the work in her own way. In this as well as in the dispute over Russian jurisdiction in Har-

bin and other municipalities on the Siberian-Chinese frontier, already explained in these pages, is indicated a growing realization on the part of China of her strength and of her position as an independent nation.

American Capital and Chinese Railways.

It was definitely decided last month that there would be American participation in the Hankow-Sze-chuen Railroad loan, the amount of which is to be increased from \$27,500,000 to \$30,000,000. Of this latter sum American bankers are to get one-fourth, the other three-fourths going to British, French, and German interests. Americans, moreover, are to have equal opportunity to supply material for the main line and all its branches. They will appoint subordinate engineers and will also participate in future loans. The significance of this achievement is not merely in the amount of money involved. It lies also in the principle, now undoubtedly established, that the products of American industries are to be used in the construction of Chinese railways and that American engineers will have the opportunity to assist in such construction in the future. It is interesting to note, in passing, that the Chinese Ambassador to this country, Dr. Wu Ting-fang, has been recalled and that Dr. Chang Yin-tang has been appointed to succeed him.



CUTTING THE CHINESE LOAN PIE.

(In this way the *National Review*, published in English in Shanghai, sets forth the competition of England, France, Germany, and the United States for shares in the loan soon to be floated to finance the Hankow-Sze-chuen railroad.)

RECORD OF CURRENT EVENTS.

(From July 21 to August 20, 1909.)

PROCEEDINGS IN CONGRESS.

July 26.—The Senate adopts a resolution providing for the transmission of the proposed income-tax constitutional amendment to the Governors of the States.

July 30.—In the House, Mr. Payne (Rep., N. Y.) presents the report of the tariff conference committee and explains the changes made.

July 31.—The Senate passes the Urgent Deficiency Appropriation bill carrying an item of \$25,000 for the President's traveling expenses. . . . The House adopts the conference report on the Tariff bill by a vote of 195 to 183, twenty Republicans voting in the negative and two Democrats in the affirmative.

August 2.—The Senate begins discussion of the Conference Committee's report on the Tariff bill. . . . The House adopts the report on the Philippine Tariff bill.

August 4.—In the Senate, a concurrent resolution making corrections in the leather schedule of the Tariff bill is reported. . . . The House passes the Urgent Deficiency Appropriation bill.

August 5.—The Senate adopts the conference report on the Tariff bill by a vote of 47 to 31, seven Republican Senators,—namely, Beveridge (Ind.), Bristow (Kans.), Clapp (Minn.), Cummins and Dolliver (Iowa), La Follette (Wis.), and Nelson (Minn.),—voting against the report, and one Democrat, Mr. McEnery (La.), being paired for the bill; the concurrent resolution revising the leather schedule is passed and sent to the House. . . . The House agrees to the concurrent resolution amending the leather schedule; the new committees are announced by Speaker Cannon. . . . Both branches adjourn *sine die*.

POLITICS AND GOVERNMENT—AMERICAN.

July 27.—The Chicago grand jury, investigating police graft, brings thirteen indictments against resort keepers.

July 28.—The State of Missouri appeals the railroad rate cases in the United States Supreme Court.

July 29.—Virginia Republicans nominate W. P. Kent, now consul at Guatemala, for Governor and adopt a platform favoring local option with counties and cities as units.

August 3.—The Schmidt ordinance establishing three-cent fares for a part of the Cleveland street-car system is defeated at a popular referendum vote, the ordinance having been favored by Mayor Johnson.

August 4.—George M. Shipley resigns as chief of police of Chicago.

August 5.—President Taft nominates A. Piatt Andrew, of Massachusetts, for Director of the Mint. . . . President Taft signs the Payne-Aldrich Tariff bill (see page 341).

August 6.—R. E. Cabell, of Virginia, is appointed Commissioner of Internal Revenue. . . . Federal Judge Campbell, of Muskogee, Okla., orders the dismissal of 30,000 Indian land-alienation suits, involving 2,000,000 acres, brought by the Government in the interest of the Five Civilized Tribes.

August 9.—The Georgia Senate refuses to consider a report favoring the federal income-tax constitutional amendment.

August 10.—The Alabama Legislature unanimously adopts a resolution ratifying the income-tax amendment to the Constitution of the United States.

August 11.—The Georgia Legislature adjourns. . . . The Washington Legislature meets in special session.

August 12.—The Connecticut Legislature defers action on the resolution providing for an income-tax amendment to the federal Constitution.

August 15.—A letter written by President Taft to Secretary Nagel directing that the census be kept out of politics is made public at Beverly, Mass., together with a list of 134 census supervisors. . . . A call is issued for a conference of "progressive" New York Democrats.

POLITICS AND GOVERNMENT—FOREIGN.

July 22.—The British House of Lords begins the hearing of a test case to decide whether trade unions are entitled to make a levy on their members for the payment of labor representation in Parliament. . . . M. Aristide Briand, Minister of Justice and Public Worship, is asked to reconstruct the French cabinet. . . . A riot is caused in Madrid, Spain, by an attempt to prevent the departure of troops for Morocco.

July 23.—The Prime Minister of England addresses a great meeting in London in defense of the budget. . . . A strong branch of the British Free Trade Union is established in Manchester. . . . The new French cabinet is announced.

July 24.—Meetings at Hyde Park, London, to support the Liberal budget are attended by nearly 500,000 persons. . . . M. Briand completes the French cabinet; Georges Cochery becomes Minister of Finance; General Brun, Minister of War, and Admiral de Lapeyrière, Minister of the Navy.

July 26.—General Rafael Reyes resigns the presidency of the Republic of Colombia. . . . A general strike and martial law are declared at Barcelona, Spain.

July 27.—In the French Chamber a vote of confidence in the new ministry is carried by 306 to 46.

July 28.—Martial law is proclaimed over the whole of Spain. . . . Mr. F. Holder is elected Speaker of the Australian Parliament. . . . The British House of Commons adopts a strenuous

rule of closure in order to force a vote on the budget....The Colombian Senate accepts the resignation of President Reyes and fixes August 3 as the date for the election of his successor.

July 29.—The Cuban cabinet resigns.

July 30.—The Venezuelan Congress rejects ex-President Castro's manifesto justifying his own actions.

July 31.—The Danish cabinet resigns office.

August 3.—Gonzales Valencia is chosen by the Colombian Congress to fill the unexpired presidential term of General Reyes, resigned.

August 7.—General Tremau is chosen as commander-in-chief of the French army to succeed General La Croix.

August 10.—The Miguelista and Zayista factions of the Cuban Liberal party agree on fusion.

August 11.—The Venezuelan Congress, acting under the provisions of the new constitution of August 5, unanimously elects General Gomez, acting-president, as provisional president, to hold office until April 19, 1910....General von Einem, German Minister of War, resigns office....A new Bolivian cabinet is formed, with General Pando as Foreign Minister.

August 12.—Ellidore Villazon is inaugurated president of Bolivia to succeed Ismail Montes.

August 15.—The Cretan government resigns.

August 16.—A new Danish cabinet is formed under the premiership of Count Holstein-Ledreborg....A new Venezuelan cabinet is announced.

August 19.—The British House of Commons passes the bill for a South African constitution.

INTERNATIONAL RELATIONS.

July 21.—Moorish tribesmen make another attack on Melilla....French troops capture Abeshir, the capital of Wadai, after a sharp action.

July 22.—Delegates from the Turkish Parliament are entertained by the British Government at the House of Commons....Peru and Bolivia agree to review the boundary award recently handed down by President Alcorta of Argentina.

July 25.—The flags of the four protecting powers in Crete are hauled down.

July 26.—The Moors resume the attack on the Spanish troops at Melilla....The Venezuelan Government, owing to delay in settling the Crichfield and Oronoco claims, sends the protocol with the United States to Congress for approval....The United States demands reparation from Panama for outrages committed on American citizens....Transports conveying British, French, Italian, and Russian troops leave Crete, completing the evacuation....The transfer to Great Britain of the Siamese states Kelantan and Tringganu is completed.

July 27.—The Greek flag is hoisted at the barracks and fortress of Canea, Crete.

July 29.—The Moors attack Alhucemas, an island fortress near Melilla occupied by the Spaniards.

July 31.—The Russian Minister to China reopens the Harbin and Manchurian railway zone questions by the reimposition of taxes.



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MR. R. G. VALENTINE.

(The new Commissioner of Indian Affairs.)

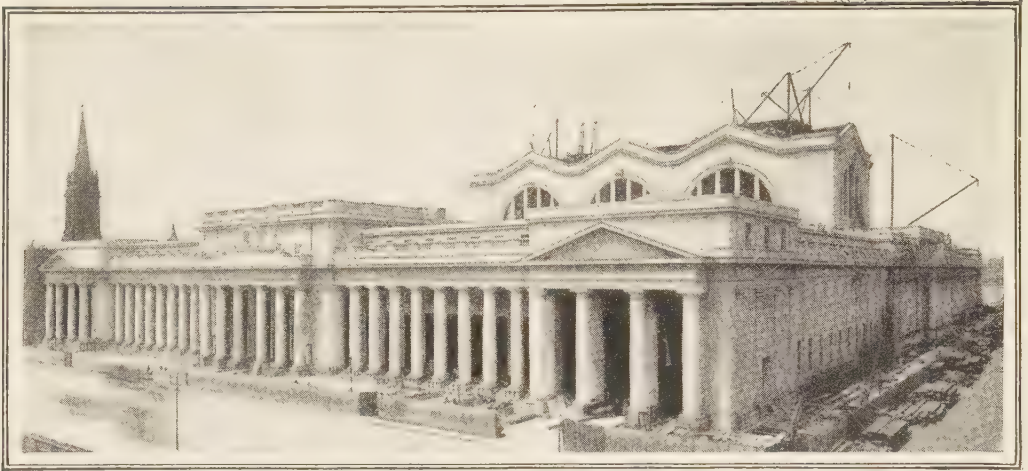
August 1.—Another Spanish detachment is ambushed by Moors near Melilla, several officers being wounded....The meeting of the Czar of Russia and President Fallières of France apparently strengthens the Franco-Russian alliance in the direction of peace....A new patent treaty between the United States and Germany is promulgated.

August 2.—The Czar of Russia is welcomed in England by the King, the Prince of Wales, and other members of the royal family.

August 3.—Chile requests Bolivia to recall her *chargé d'affaires*, owing to alleged misrepresentation of Chile's attitude in the dispute with Peru....Negotiations for American participation in the Chinese railway loan are practically completed....A meeting of President Taft and President Diaz, of Mexico, at El Paso, Texas, is arranged through official correspondence between the United States and Mexican governments.

August 5.—China replies to the Russian note of July 2 regarding the opening of Sungari and other rivers to international trade.

August 6.—Turkey sends a note to Greece demanding a formal declaration that the latter country will not interfere in Cretan affairs....Japan informs China that work toward the improvement of the Antung & Mukden Railway will begin immediately....The State Depart-



THE NEW PENNSYLVANIA RAILROAD STATION IN NEW YORK CITY.

(The last piece of stone was placed in this structure on July 31, thirteen months after work was begun. The building is 788 feet 9 inches long and 430 feet 6 inches wide.)

ment at Washington gives notice that trade agreements with other countries must be abrogated under the terms of the Payne Tariff law.

August 8.—Bolivians at Guapai stone the houses of Peruvian and Argentine residents.

August 9.—In reply to Turkey, Greece declares that Crete being in the hands of the protecting powers the solution of the question of the island's future must be left to them; the Cretans strike the Greek flags....China practically withdraws her objection to Japan's reconstruction of the Antung & Mukden Railway....A treaty is signed between the United States and Argentina dealing with reciprocity and naturalization.

August 10.—As a result of conferences at Peking, assurances are given that the United States will get one-fourth of the loan for the construction of the Hankow Railroad....Japan accepts the Chinese proposal to resume negotiations on all questions in dispute except that of the Antung-Mukden Railway....Baron Takahira, Japanese Ambassador to the United States, leaves Washington on his return to his own country.

August 11.—A threat by the powers to reoccupy Crete causes Turkey to accept the Greek note regarding the island....The Darien Indians offer their adhesion to the republic of Colombia.

August 12.—China sends a note to the powers upholding its attitude toward Japan in the Antung-Mukden Railroad question.

August 13.—All the Spanish warships are ordered to Melilla....Turkey submits another note to Greece insisting on the formal declaration that the latter country has no ambition regarding Crete....A British battleship leaves Malta for Crete....President Villazon, of Bolivia, urges that the boundary dispute be settled by diplomacy.

August 15.—The Sultan of Morocco orders the Riff tribes to cease attacks on the Spaniards.

August 16.—The provisional committee governing Crete takes the oath of allegiance to Greece.

August 17.—The powers warn the Cretan Government not to attempt to prevent the hauling down of the Greek flag at Canea.

August 19.—Greece, in replying to the last Turkish note regarding Crete, leaves the question of the island's future in the hands of the protecting powers.

OTHER OCCURRENCES OF THE MONTH.

July 21.—A severe storm on the south coast of Texas causes thirty-eight deaths and a property loss of nearly \$1,000,000; Galveston, fortified by the new sea wall, sustains little damage and no loss of life.

July 22.—St. Petersburg, Russia, reports a notable decrease in cholera cases....The replica of Henry Hudson's *Half Moon* arrives at New York from Rotterdam.

July 23.—The London and Westminster Bank, Ltd., and the London & County Banking Company, Ltd., agree to amalgamate....The Canadian Conciliation Board refuses to admit the chief demands of the striking coal miners....Mahar Lal Dhinra, the murderer of Sir Curzon Wyllie, is sentenced to death at London after a trial lasting less than an hour....Mayor McClellan, of New York City, vetoes the proposed new building code.

July 25.—Louis Bleriot flies across the English Channel from Calais to Dover in his monoplane in less than thirty minutes.

July 26.—A historic pageant is performed at York, England, and a Welsh national pageant, with 5000 performers, at Cardiff....Forty thousand men quit work in Sweden; a general strike is called for August 4.

July 27.—The Spaniards sustain heavy losses in a battle with the Moors at Melilla....Orville Wright makes a new world's record for an aeroplane carrying one passenger in his endur-

ance test flight at Fort Myer, remaining in the air 1 hour, 12 minutes, and 36 seconds....The Youngstown Sheet & Tube Company announces the adoption of a profit-sharing plan with its employees....Common stock of the United States Steel Corporation is put on a 3 per cent. dividend basis.

July 28.—More than 500,000 British miners vote to strike in support of the Scotch miners in resistance to a wage reduction of sixpence a day.

July 29.—Professor Ennerrich, of Munich, announces the discovery of the action of cholera bacilli, which, he says, working on nitrogenous food, liberate free nitric acid.

July 30.—The Wright brothers successfully complete their aeroplane tests for the Government, the 10-mile straightaway flight, with turn, being made at a speed of more than 42 miles an hour....Earth shocks in Mexico destroy the town of Chilpancingo and half of Acapulco....The British Board of Trade, acting as mediator, upholds the protest of the Scotch miners against a reduction of wages....Speyer & Co., of New York, take \$16,500,000 of the Cuban $4\frac{1}{2}$ per cent. loan at $88\frac{1}{8}$Mrs. Ella Flagg Young is elected Superintendent of Schools for the city of Chicago.

July 31.—King Edward reviews the British fleet in the Solent....Another severe earthquake is felt in Mexico City....Fire destroys a large part of Osaka, Japan....The dirigible balloon *Zeppelin II*, sails from Friedrichshaven to Frankfort, a distance of 220 miles, at an average speed of 21 miles an hour....The Wright aeroplane is formally recognized at Washington as the arm of the aeroplane corps of the United States Army....The Pennsylvania Railroad completes the masonry work of its great passenger station in New York City.

August 1.—Acapulco, Mexico, is reported as entirely destroyed by a series of seventy-three earth shocks; a tidal wave sweeps the waterfront, but no lives are lost.

August 2.—Cotton prices advance from twenty-five to thirty points on the publication of a Government report showing a low percentage of the normal crop.

August 4.—The pageant of the Canterbury Pilgrims is presented by a cast of 2000 players at Gloucester, Mass.

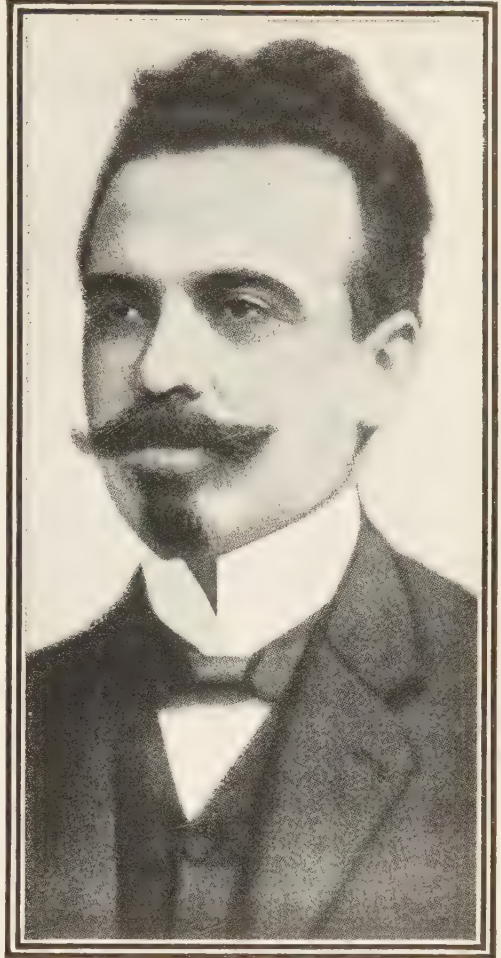
August 6.—President Taft leaves Washington for Beverly, Mass....The Western Electric Company receives a contract from the Chinese Government to install a telephone system in Peking.

August 7.—Roger Sommer, in an aeroplane, flies 2 hours, 27 minutes, and 15 seconds (unofficial) at Mourmelon-le-Grand, France.

August 9.—An extra dividend of one-half of 1 per cent. is declared on the common stock of the Canadian Pacific.

August 10.—The Duke of the Abruzzi establishes a new record in mountain climbing by ascending Mount Godwin-Austen to a height of 24,600 feet....The balloon *Sirius*, with four persons on board, crosses the Alps from Chamouni to Locarno.

August 12.—Fort William, Ont., is placed under martial law because of rioting by strikers.



DR. NILO PECANHA.

(Who as Vice-President of Brazil succeeded to the Presidency on the death of Dr. Penna.)

....The American Sheet & Tin Plate Company, in a suit filed in Pittsburg, asks damages of \$200,000 from fifty-six alleged leaders in the strike at its plants in Newcastle.

August 13.—The controversy between the Chicago street railways and their employees is settled at a conference of the leaders....Ex-Gov. S. R. Van Sant, of Minnesota, is elected commander-in-chief of the Grand Army of the Republic.

August 15.—Fire on the Cunard liner *Lucania* causes the vessel to be sunk in her dock at Liverpool.

August 16.—Mr. Curtiss makes three flights in his aeroplane at Rheims....Excessive heat is reported in the Middle West, the temperature reaching 110° Fahr. in Muskogee, Okla....Walter Wellman starts from Spitzbergen in his dirigible balloon for the North Pole.

August 17.—The railway employees in Sweden refuse to join the strike.



Photograph by The Bradley Studio, N. Y.

REV. W. R. HUNTINGTON, D.D.

(For a quarter of a century rector of Grace Protestant Episcopal Church, New York City.)

August 18.—A German fleet of ninety warships leaves Kiel for the summer maneuvers in the Baltic....President Bryan, of Franklin College, Indiana, is elected to the presidency of Colgate University, in New York.

August 19.—The mimic war game in Massachusetts comes to an end with the victory of the "Red," or invading, army....Seven cadets are dismissed from the United States Military Academy at West Point on approval of the President....The State of Arkansas files suits against sixty-five insurance companies, asking penalties of \$65,000,000.

OBITUARY.

July 21.—Samuel William Johnson, professor emeritus of agricultural chemistry at Yale University, 79....Herr Karpeles, the German writer and journalist, 61.

July 22.—William L. Riordon, writer on New York City politics, 48....Baron Detlev von Liliencron, the German author, 65....Prof. Thomas Bond Lindsay, of Boston University, 56.

July 23.—Sir Frederick William Holder, first Speaker of the House of Representatives of the Commonwealth of Australia, 59.

July 24.—Col. John Mehan, a well-known military and civil engineer, 82....Gustav Nichols, president of the Berlin Chamber of Commerce, 73.

July 25.—Robert Pitcairn, for fifty-three years connected with the Pennsylvania Railroad, 73....Mrs. Elizabeth Taylor Dandridge, a former mistress of the White House, 85....Charles Wilson, a theatrical manager well known in England and the United States, 59.

July 26.—Rev. William R. Huntington, D.D., rector of Grace Church, New York, 70....M. Eugene Rolland, the authority on French folk lore, 63.

July 27.—Mayor Leopold Markbreit, of Cincinnati, 67.

July 29.—John R. Tait, artist and critic, 75....Gen. Henry C. Worthington, of Washington, D. C., 81.

July 30.—Henry M. Putney, chairman of the New Hampshire State Board of Railroad Commissioners, 69.

July 31.—Cornelius C. Cuyler, a New York banker, 50....Alfonse Del, well known as a linguist and dialect authority, 72....Dr. George D. Dowkonnt, founder of the International Medical Mission Society, 66.

August 2.—Rev. John George Butler, D.D., founder and pastor of the Luther Place Memorial Church, Washington, D. C., 83....Calvin Wells, the iron manufacturer and former owner of the *Philadelphia Press*, 82.

August 3.—Solomon Hicks Bethea, United States Judge for the Northern District of Illinois, 56.

August 4.—Christopher Parkinson Brooks, the well-known technical educator, 43.

August 5.—Judge Silas W. Lamoreux, of Wisconsin, United States Land Commissioner under President Cleveland, 66....Mrs. Helen M. Gulliver, formerly principal of Mount Holyoke Seminary, 77.

August 8.—Brig.-Gen. Edwin B. Atwood, U. S. A., retired, 65....Ex-Congressman Milton Candler, of Georgia, 72.

August 9.—President Theodore Harris, of the Louisville National Banking Company, 72.

August 10.—Col. Albert A. Pope, the bicycle and motor manufacturer, 66....Abraham X. Parker, of Potsdam, N. Y., president of the Clarkson Memorial School of Technology, 78....Richard Golden, the actor, 55.

August 11.—Col. John C. Pegram, of Providence, R. I., 67.

August 12.—Rear-Admiral Judah Thomson, U. S. N., retired, 67....Alonzo Webster Church, former Librarian of the United States Senate, 80.

August 13.—Dr. Joseph Allison Scott, of Philadelphia, well known as a cricket player, 44.

August 14.—Dr. Sarah Hackett Stevenson, a well-known woman physician and settlement worker of Chicago, 66.

August 15.—Brig.-Gen. Edwin F. Townsend, U. S. A., retired, 76.

August 16.—Rabbi Samuel Salant, for sixty-four years chief rabbi in Jerusalem, 93.

August 17.—George Picot, secretary of the French Academy of Sciences, 71....Richard Hoffman, dean of New York musicians, 79.

August 18.—Sir Theodore Martin, the English author, 93.

THE CARTOONISTS' POINT OF VIEW.



THE RETURN OF THE DOVE.—From the *Inquirer* (Philadelphia).



THE TEMPTATION OF WILLIAM.

From the *Pioneer Press* (St. Paul).

(Mr. Rehse's cartoon shows Speaker Cannon and Senator Aldrich endeavoring to get President Taft to ride in their heavier-than-Dingley Bill airship in other words, trying to win Mr. Taft over to a high tariff bill.)



REVISION.

From the *World* (New York).

Senator Aldrich, having taken away the various articles of the consumer's clothing by means of an increased tariff, removes the duty on hides, leaving the consumer in the ludicrous position pictured above.



WESTON, JUNIOR!

From the *Brooklyn Daily Eagle* (New York).



THE FIRST TRIAL TRIP WITH A PASSENGER.

From the *Press* (New York).

Now that the income tax amendment to the Constitution passed by Congress is due to make the rounds of the various States for ratification or rejection, Mr. Harding, of the *Brooklyn Eagle*, has humorously likened this procedure

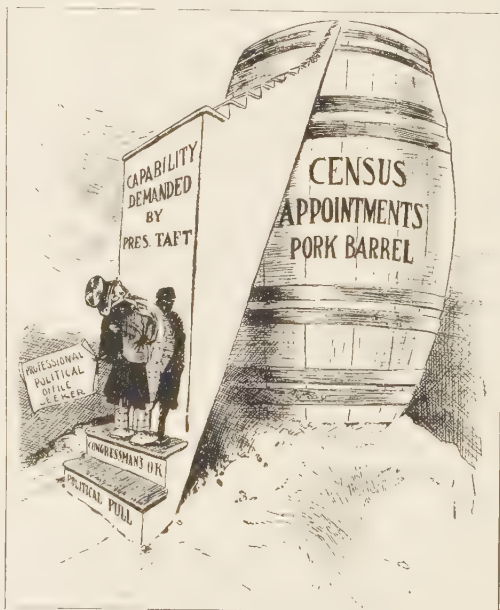
to a tour by Weston, the long-distance walker.

One of the Government tests for the Wright aeroplane last month was a ten-mile flight with a passenger. In the above cartoon Mr. Triggs,



UNCLE JOE NOT OF A RETIRING DISPOSITION.

From the *Times-Star* (Cincinnati).



PRESIDENT TAFT PROPOSES TO SUBSTITUTE A MERIT STANDARD FOR POLITICAL "PULL" IN MAKING CENSUS APPOINTMENTS.

From the *Herald* (Boston).

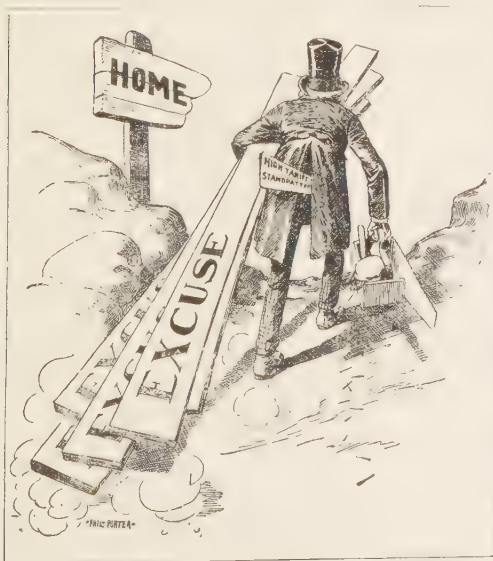


THE CONGRESSMAN'S HOMECOMING.

From the *Sun* (Baltimore).

of the New York *Press*, shows us the new Tariff bill, manned by Senator Aldrich, taking its initial flight, with "Mr. Consumer" as the nervous passenger. Should the new Tariff bill achieve as successful a trip as did the Wright flying machine it will be cause for general gratification. A glance at the cartoon at the top of

page 295, however, would seem to indicate that such a result is rather dubious. Here we find the Congressman, just back from his tariff labors at Washington, somewhat puzzled by the cold welcome he is receiving from his constituents, who apparently do not like the sort of tariff he helped to make.



POLITICAL FENCES WILL NEED REPAIRING!

From the *Traveler* (Boston).

YOUNG AMERICA: "Do you want this back, Mr. President?"

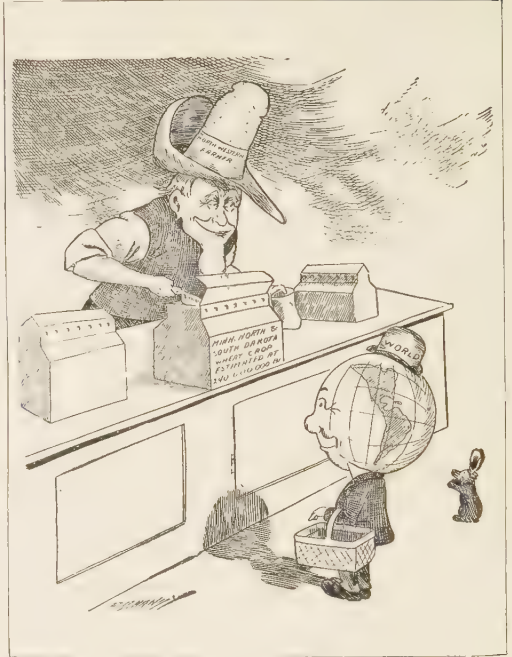
From the *Pioneer Press* (St. Paul).



THE DEMOCRATIC DONKEY SICK AGAIN!

From the *American* (New York).

(A number of eminent New York lawyers of Democratic antecedents have called a conference to be held at Saratoga for the purpose of rehabilitating their party.)



NORTHWESTERN FARMER: "I guess I'll have enough to last you for a while this year."

From the *News-Tribune* (Duluth).



"WHY, I THOUGHT ALL EXPOSITIONS LOST MONEY."

From the *Leader* (Cleveland).



WASH DAY.

From the *Herald* (Washington, D. C.).

(Secretary MacVeagh, of the Treasury Department, proposes to have bank notes and other forms of paper currency washed frequently.)



"DROPPING THE PILOT."

From the *Journal* (Detroit).

The West, as a bucking broncho, throwing his rider, the East, is in accordance with the spirit of Governor Johnson's Seattle speech, in which he urged the West to "throw off the shackles of the East." The cartoon entitled, "Dropping the Pilot," is an appropriate reference to the recent referendum election in Cleveland, as a result of which the people of that city rejected Mayor Johnson's plan for the operation of the street railways.



THE WESTERN DECLARATION OF INDEPENDENCE.

From the *World* (New York).



CLUCK! CLUCK! CLUCK!

From the *Traveler* (Boston).



GENERAL BINGHAM PAINTING MAYOR McCLELLAN'S PORTRAIT.

From the *World* (New York).

(Apropos of a recent magazine article on New York's police conditions by General Bingham, in which he included a description of Mayor McClellan.)



MOTHER OREGON: "Do my eyes deceive me? And just when I had given up hope of that daughter ever having a feller!"

From the *Post-Intelligencer* (Seattle).

Considerable interest has been manifested among financiers in Mr. Harriman's return from abroad, where he has been seeking renewed health during the summer, and the people of the

Northwest, as well as railroad investors generally, continue to discuss the rivalry between his roads and Mr. Hill's for the mastery of the Central Oregon territory.



THE PRICE OF IGNORANCE.

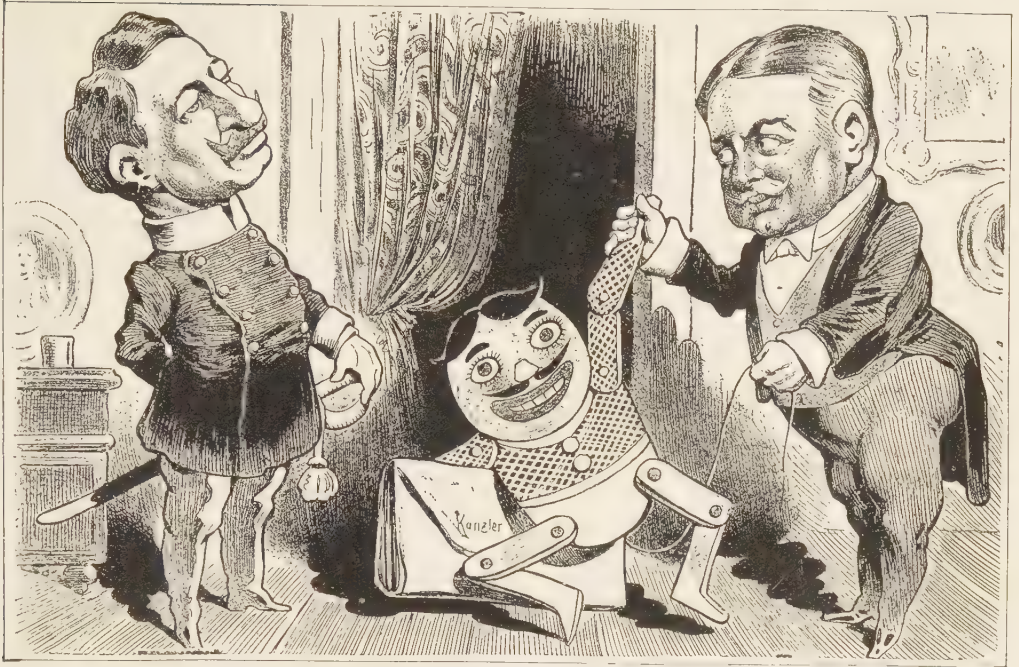
From the *American* (New York).

The controller of the currency recently ascertained by means of circular letters that only about 25 per cent. of bank directors were familiar with the affairs of their institutions.



NEXT!

From the *Traveler* (Boston).



AN AUSTRIAN COMMENT ON THE NEW GERMAN CHANCELLOR.

EX-CHANCELLOR BULOW (to the Kaiser): "Sire, behold the man of my choice for the Chancellorship. He has every quality needed for success."

From *Kikeriki* (Vienna).



WINGED VICTORY.

London *Punch's* felicitous reference to the famous classical statue, in commenting on the successful flight across the Channel by M. Bleriot in his monoplane.



UNITED SOUTH AFRICA.

From *Punch* (London).

Apropos of the passage to its second reading on July 27 in the British House of Commons of the act creating the United States of South Africa.

THE PRESENT SITUATION IN SPAIN.

BY LUIS GARCIA GUIJARRO.

(Professor in the University of Madrid.)

WHILE the lifeless bodies of the victims of the Turkish revolution are yet hanging on the gibbets and cannon are still smoking in the streets of Teheran, an unexpected event has taken place in the Spanish possessions of the north of Africa and has shaken the whole peninsula,—a percussion-cap, as it were, igniting the rankling hates and the ill-concealed passions of parties and of opinion which Spain, more than any other nation, contains within itself.

Under other circumstances this incident would have passed unnoticed, or at least would have been consigned to oblivion in one way or another, perhaps by demanding hostages from the frontier tribes, perhaps by interminable and fruitless reclamations on the part of the Spanish diplomatic representative at the Sultan's court. But under the present circumstances the murder of four workmen of the railway of the Franco-Spanish mines constitutes the distinct and definitive outbreak of hostilities latent ever since the red and yellow flag has waved in those possessions which are so contemptuously called "the African penitentiary."

Even so, however, the matter as yet deserves to be classified under no more important head than that of *fait du jour*. A civilized nation is purposing to punish severely outrages committed by the ungovernable Moors of Er Rif. We Spaniards have precedents therefor in our own history, most recently the Moroccan outbreak of 1893; and what we desire to do is no more nor less than what France has done on the Mulya in Morocco, the Italians in Somaliland and Eritrea, and the Germans among the Hereros.

NATIONAL PROTEST AGAINST WAR.

Spain, with the intention of punishing severely the unjustifiable uprising, ordered a body of troops to be sent to reinforce the usual contingent of 6000 men constituting the garrison of Melilla; and when the attempt was made to mobilize these battalions an anti-war outburst rent the soul of the nation. First arose the cries of women and

children; then the working-classes joined in those protests, which, at their inception, inasmuch as they were feminine, might have been considered purely sentimental; later on the protests no longer came from women and workmen only, but from the army itself, mutinying and turning its bayonets against its officers; from politicians eager for selfish reasons to avail themselves of this opportunity; from the popular spirit, finally, which, finding the moment propitious for manifesting its constant restlessness, showed itself in riots, strikes, insurrections, conflagrations, in all the excesses of a mob inebriated with wrath and without curb, without any definite purpose whereby its fury might be mitigated.

LESSONS OF 1898.

This sudden appearance of a very serious evil leads us to reflect upon the hidden causes which have silently brought about the present state of affairs. Since the loss of her colonies Spain has been for ten years trying to profit by the terrible lessons of Cavité and Santiago, and partly by means of a natural evolution, partly through the agency of the governmental parties, was beginning to awake to life. The present disturbances afford us an opportunity of making a brief study of the social conditions through which Spain is passing. We shall endeavor, both in our censure and in our praise, not to be influenced by prejudice. Although "to aid in the disheartenment of the mother-country is in truth an impious work," to present her defects "without jeers, or insults, or contempt"* is almost always salutary, for with the clear consciousness of one's sins may come a stimulus to betterment.

THE THREE DANGERS.

Three events of the utmost gravity and importance have just taken place at the same time, damaging still further the already impaired credit of the country and not leaving unscathed its institutions,—the outbreak of

* Menendez y Pelayo; *Historia de los Heterodoxos españoles*; vol. III, page 835.

the Riffian tribes, the death of Don Carlos, and the abortive revolutionary movement of Barcelona. We must not, of course, consider these events as mere accidents without consequences. Whether they were the result of long and studied preparation or due to chance, they took place almost in unison, and their united weight fell upon a mass of people very ready, after so many disasters, to seek safety wherever it might be found.

THE OUTBREAK OF THE TRIBES AND THE MOBILIZATION OF THE TROOPS.

There has been much talk of our rights and obligations in Morocco. Our proximity to the Mograbin Empire, our acquaintance with the usages and customs of its people, and the fact that we have possessed that "penitentiary" for a long time have consecrated our claims in international law. This the powers admitted in the act of Algeciras; and without taking into account the hackneyed "testament of Isabel la Católica," the fact is that no other nation could present better rights to intervene in the Moroccan anarchy. Indeed, had our situation been different we alone ought to have had the principal rôle; but impoverished and unsettled by several years of crises, we necessarily had to associate ourselves with the French and to accept the rôle of figurant, allowing the neighboring republic that of protagonist.

However, this secondary rôle assigned us by the protocol may be considered, after all, a diplomatic triumph. Our work consisted merely in sending advisers for the internal management of the Empire. The French, on the contrary, had to organize battalion after battalion, which, though annihilating with their powerful resources of war the Moroccan hordes, could not avoid reverses which almost turned triumph into defeat. Since then the Sultan who signed the act of Algeciras has been dethroned. The intrigue which brought him to ruin was due to his too great affection for European policies; therefore he who took his place was uncompromising in his non-compliance with the international agreement, in his absolute hostility to the Christians, in his independence of the European tutelage which was so antagonistic to the sovereignty of the empire and to the precepts of the Koran. And naturally when the international promises were broken Spain found herself forced to intervene.

The present cabinet, headed by Don Antonio Maura, which, if it sins in anything

concerning our international policy, sins in being too prudent and moderate, and in having on different occasions avoided sending armed forces to co-operate with the French, tried anew to proceed *à l'amiable*, and sent our representative in Morocco, Sr. A. Merry del Val, to arrange for discussing with the Sultan certain measures relating to our African possessions. The Arabs have been and are at present masters of diplomacy; in lieu of ministerial subtleties and sophistries they possess the forbearance to listen to whatever is asked of them, then they whine and moan, and in the end do not obey. Without doubt, therefore, Sr. Merry del Val ended his interview somewhat out of patience, for he obtained no decisive answers, the negotiations remaining in suspense until they should be terminated by the Moroccan embassy which Muley Hafid proposed to send to his Majesty the King of Spain. And it was while the ambassadors of the Sultan were being received with grotesque solemnities that there took place the infamous attack of the Riffians upon the workmen of the railway of the Spanish mines situated near Melilla.

The quick intervention of General Marinas gave condign punishment to the frontier tribes, but it was straightway seen that this had been only a spark thrown off by the fire and that the entire region of the Guelaia (that is, the tribes of Benisicar, Beni-Sidel, Beni-Bugafor, Mazuza, Beni-fu-Ifrur) was ready for hostilities. Therefore, in order to subdue the turbulent tribes, General Marinas asked the government for a reinforcement of 40,000 men.

In these days the safety of nations is intrusted to bayonets. But this very guaranty of peace is liable to be converted into a mighty calamity. The army "is the fatherland in its youthful and vigorous aspect. Whatever the fatherland, conceived as a number of individuals, has or may have of ineptitude, of turbulence, of superstition, or of blasphemy disappears under the iron pressure of discipline, which of so many insignificant pieces makes one prodigious whole."* But Spain, as a result of an infinite series of factors, has lived and still lives under a régime entirely too military.

A long list of insurrections, revolts, and civil wars has created the "camarilla spirit" (the word *camarilla* signifies a coterie of influential persons managing the government)

* *Doña Perfecta*; by B. Pérez Galdós; chapter *La Tropa*.

and produced a multitude of high officials such as exists in no other country. Besides, our unfortunate campaigns teach that favoritism has ruled to the extent of subordinating the most splendid examples of bravery and heroism to considerations of friendship or of relationship. The commanders-in-chief have had absolute authority in matters of promotion, and "not only did generals reward friends who were amusing themselves in Havana and Manila while others were fighting but also some who had not left Madrid."* Some chiefs made larger fortunes during the campaigns, while others were sacrificing themselves for the fatherland without being able to validate claims to their own property. All this being so, discipline necessarily relaxed, and the army, which should be "glory and honor," could not but become merely "a collection of soldiers, an insufferable calamity."†

The popular imagination collected all these reports, which were rife now in the form of murmurs, now as clear and precise accusations, and compared the conclusions drawn from them with those drawn from the fate of the soldiers, who, having marched away in strength and health one or two years before, were now returning exhausted, nothing but specters, skeletons supported by sheer spirit. Like living warnings they were arriving by thousands in Barcelona, Santander, Valencia, Coruña, and the ports of the south. The people saw them, heard their stories of resignation and suffering, and forgot straightway the deeds of arms in which their officers or chiefs had figured as heroes. Merely their "while we were eating hard bread they were drinking champagne" was enough to convince the people that even in the army, although it seemed a great family, there existed those two irreconcilable enemies,—the well-to-do and the proletariat; the rich man who exploits others and the poor man who patiently offers his services.

MILITARISM AND THE THRONE.

Most of the officers lamented this state of affairs, which was estranging the nation from them, but they could not better matters. Everything was the inevitable result of a policy of selfishness and sordidness. As the chasm between the military class and the people grew wider and wider, the former drew closer to the throne, replacing the pure

ideal of the fatherland by dynastic considerations. From that moment we fell into militarism. The throne, indeed, after sounding public opinion, saw that it was far from firmly planted in the country, not even the countless employees which filled the Spanish administrative bureaus being attached to it. Thereupon ensued a series of favors to the armed class, inexplicable unless they were in payment of a tacit alliance, such as new credits, pensions, increase of officers' salaries, and so forth, which presented a palpable contrast with other branches of the public administration.

This policy could not but lead, sooner or later, to mutiny than which nothing could be more serious in an armed body; and this inevitable result has now come to pass, inasmuch as the troops have refused to follow their officers, and have even opposed them with bayonets. The officers on the other hand, wounded in their honor and conscious of the disaffection of the nation, have become anxious to vindicate themselves by acts of valor which are rather acts of temerity. They have uselessly exposed their lives to the fire of the Riffians and have been the victims in a great number of the casualties which have occurred.

THE DEATH OF DON CARLOS AND THE SUCCESSION OF DON JAIME.

At the same time that the government was arranging to mobilize the reserves in order to send the desired reinforcements to Melilla there arrived the official news of the death of the Duke of Madrid, Don Carlos de Borbón. This aggravated the troubled state of affairs. Don Carlos was succeeded by his son, Don Jaime, a man full of the energy of youth and accustomed to war. Would he try to make valid his claims by an insurrection as his predecessors had done? Has Spain changed to the extent of rendering such an attempt impossible?

Whoever desires to study Carlism will find a great contrast between appearances and reality. It is useless to study the results of elections. In Spain it has become customary for parties to alternate in power; a Conservative majority is succeeded by a Liberal majority, and *vice versa*, without the changes affecting in any sense the national consciousness. The Carlist party, although it is represented in the national legislative body by only fifteen or twenty members, is really an undeniable force, which is to be feared in circumstances like the present.

* Urquiza; letter published in *El Nacional*, of Madrid.

† See *Los desastres y la regeneración de España*; Rodríguez Martínez.—Pérez Galdós.

The Carlists, like the Republicans, are recruited from the lower classes, the former from the agricultural, the latter from the manufacturing class; and although the two parties manifest diametrically opposed tendencies, they agree in hatred of the actual régime.

To contend that all this popular mass has not developed in a more liberal direction, and that it desires the same political program as in 1873, would be absurd. But who knows whether Don Jaime, thoroughly modern in character and tendencies, will adopt a position in accord with all the aspirations of his party? In this connection, however, it must not be forgotten that before the death of his father the Carlist party considered him to be a solution of the question of Carlism and that the "Jaimistas" constituted a majority of the younger Carlists of Spain.

As to organization, in spite of the assurances of the government that the Carlist party is deceased, it is certain that it is in a better condition than any other party; it possesses more than forty newspapers throughout Spain; its clubs are established in almost all cities, strangely enough, even in those where Republicans are in the majority (for instance, in Barcelona, Valencia, and Zaragoza), and these clubs implicitly obey the voices of their sectional chiefs. If this is so in times of peace, is it unreasonable to consider as a serious danger the possibility that all these adherents of Don Jaime may now try to validate their claims by arms? A characteristic note of the Carlism of today is its "secularization"; that is to say, it is not so decidedly protected by the Church as in 1873. The present dynasty has not been averse to granting benefices and miters, so that as a rule only the lower orders of the clergy support the Carlist tradition.

All in all, the death of Don Carlos may be considered as a sign of life for Carlism. He seemed in these latter years to have abandoned the idea of laying claim to the crown, and lived quietly in Venice. With the youthfulness of Don Jaime the party is rejuvenated; and an uprising in which he might count upon thousands of adherents would not be difficult in the present circumstances.

THE REPUBLICAN PARTY.

Side by side with this danger is the Republican agitation. If the nature of the Spanish Republican party be carefully

studied it will be seen that its triumph is very improbable, and that this is due to the lack of harmony among its adherents. Most of the important cities are Republican: Madrid, Barcelona, Cadiz, Zaragoza, Castellón de la Plana, Valencia, Sevilla, and so forth, have Republican representatives in the national legislative body. This being so, why does Republicanism not constitute a serious menace to the stability of the government? Because, as we have already said, the differences between the various shades of the party are so marked that certain of its members are considered as political enemies by their colleagues, rather than a party standing for law and order.

Furthermore, Republicanism in Spain seems to be a collection of ideas for nourishing the license of the masses, and therefore the Republicans cannot but fall, sooner or later, into socialism and anarchy. Educated in this manner, the masses of the people close their eyes to whatever does not satisfy their desires, and so not seldom their hatred is incurred by those who, a little while before, were the arbiters of their wills. Blasco Ibañez, Salmerón, Azcárate, Morote have frequently been the victims of this inconstancy. In their desire for law and order they dared to acknowledge the justice of certain acts of the government, and from that moment they were reproached with lack of Republicanism. For the people to be Republican means to be hostile "*à outrance*" to the government, to the Church, and to property rights; naturally those who hold these opinions have had to separate little by little from those who believe in law and order, whence came the division of the party into "governmentals" and "radicals." The latter recruited their forces from the great manufacturing centers; Coruña, the mining basin of Vizcaya; Barcelona, and Valencia contributed an uncultured mass imbued with anarchistic theories and capable of the worst excesses. Leaders of these movements were, in Valencia, Rodrigo Soriano and Azziati*; in Barcelona, Alejandro Lerroux.

THE CATALAN TERRORISM AND THE SCHOOLS OF ANARCHY.

In the latter city the Republican party has assumed an especial character because of the spread of anarchistic ideas. Barcelona, the richest city of Spain, possesses a large

* Incredible as it may seem, the masses sent to the Parliament Felix Azziati, an Italian citizen, who had to be naturalized *a posteriori*.

population, essentially industrial and commercial. The feverish bustle of its streets and inhabitants gives it a European character distinct from the placidity and calm of other Spanish cities. In Barcelona every one works with uncommon zeal; merchants, bankers, simple workmen contribute all their energies to this incessant pulsation of life and activity. But with this "Europeanization" Barcelona has acquired most harmful ideas, which have worked upon the imagination of the laboring masses to the extent of bringing them to terrorism. These classes have their centers of instruction, in which they are taught nothing but antagonism to all the bases of the social edifice; they have their newspapers and ultraradical reviews; and they read with the utmost relish translations of all the anarchistic literature of Russia, France, and Italy, making of these baneful doctrines the catechism of their lives.* Face to face with these elements of destruction is the class of selfish and utilitarian employers, whose conduct in regard to the workmen is not very likely to re-establish social peace.

A socialist review entitled *La Ciencia Social* described in 1895 the social conditions of Barcelona in such correct terms that we cannot do better than translate the passage. It shows the causes of the events which have just taken place in the capital of Catalonia.

Gold is king; private speculation bases its calculations upon the general woe. Everywhere we see each class interested in the misfortune of the other classes; and individual interests opposed to collective interests; the lawyer desires the disruption of families and a plenitude of lawsuits; the doctor desires for his fellow-citizens fevers, wounds, and maladies of every kind; the soldier desires a war which may kill half the army so that he may become a general; the priest hopes that the dead may abound,—the "good" dead, those who leave fat legacies and order luxurious interments. . . . In everything and everywhere rivalry and competition are sources of defamation. . . . We call ourselves equals before a law which protects the rich man and abandons the poor man to the extent of making the latter the necessary enemy of the former; for the triumph of goodwill is not possible in a society in which, out of every twenty persons, nineteen possess a right to the common burial-ground.

If all this is so,—if the rich man takes no account of the lot of the poor man; if the latter sees in his employer his eternal oppressor,—there must of necessity be a stifled

and latent war, which will break out in uncurbed disturbances at the first opportunity. This opportunity presented itself when the city became defenseless because of the necessity of sending the regiments of its garrison to Melilla. If the movement had been well organized it would have been able to resist the government, for the Republicans possess sufficient numbers. But no one can manage fanatic masses, and the chimerical attempt failed. Its failure, however, cannot blind us to the deep-seated causes of our social evils, which in Catalonia possess a peculiar character. With the rebirth of sectionalism in Catalonia has awakened a certain hatred for the central section of the country, which the Catalans consider to be of absolutist tendencies and to be the cause of all misfortunes which may befall the provinces. This movement has been worked up little by little by all methods of social influence; the press, literature,† even the fine arts present in Catalonia a peculiar aspect not to be found in other parts of Spain, and which has given the attempted revolution a sectional character.

The doctrines diffused among the masses have an essentially anti-clerical tinge. Therefore, when the riots broke out in the streets, the first attack of the mob was directed against the religious orders. Immediately after their expulsion from France the monks came in great numbers to settle throughout Catalonia; moreover, they not only possess novitiates, but also, inasmuch as they endeavor to procure resources by teaching, have built schools in the richest cities of Catalonia. Their splendid buildings and the stories which circulate among the people about the immense riches of the friars make them the target of any and all attacks, so that they were the first victims of the riots.

The government, although it has stifled the insurrectional movement, must not forget that these events indicate causes which lie deeper and which are not to be cured by gunshots but by a careful study of the needs of the people. Only thus will end the ever-present divorce between the governing and the governed; only thus will the people, having learned to trust those who direct their destinies, attain to days of prosperity and happiness.

* To the "Escuela Moderna" belonged Professor Morral; from its doors he went out to throw the bomb in the path of the sovereigns in May, 1906.

† Guimerà, a well-known Catalan dramatist, has made a splendid study of the social customs of Catalonia in "Terra Baixa." This book has been called one of the emblems of the sectionalist cause.

HAWAIIAN PROBLEMS OF TO-DAY.

BY FORBES LINDSAY.

(Author of "America's Insular Possessions.")

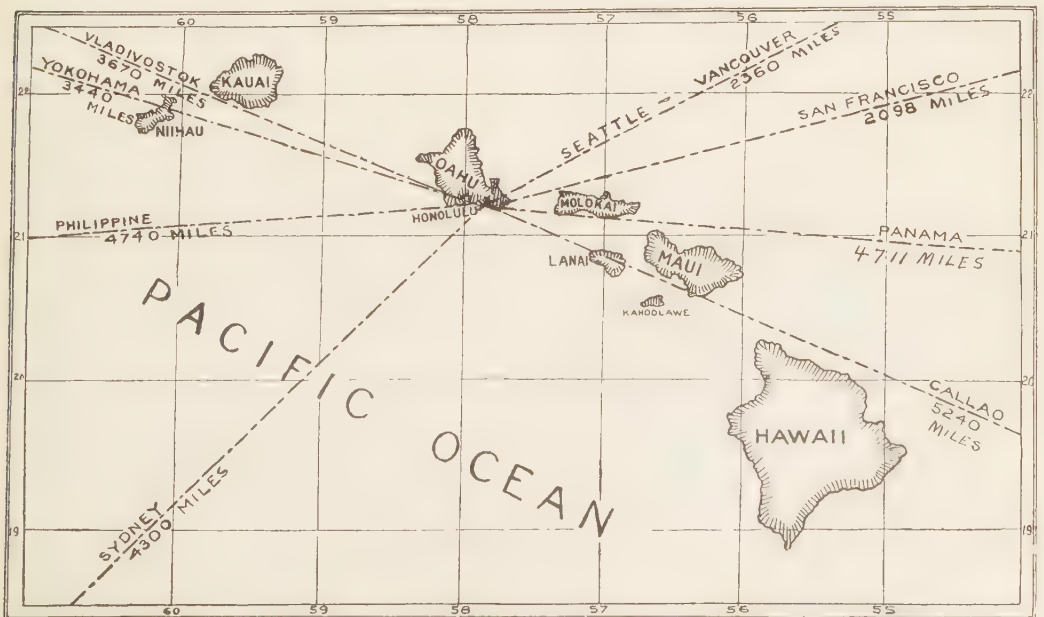
HAWAII knocked insistently at our door for many years before the exigencies of war induced us to open it with sudden alacrity. More than a decade has elapsed since the Territory was admitted to our federation of commonwealths, and yet our people in general know little about the internal affairs of Hawaii and have no adequate idea of its value. The present labor difficulties will serve at least one good end by attracting attention to this outlying section of our country.

The Hawaiian archipelago lies in the direct route from our western ports to the Philippines, Australia, and the continent of Asia. A straight line drawn from Cape San Lucas, the southernmost point of the United States, to Manila, its most distant possession, would pass through the island of Hawaii. Honolulu is the only possible coaling and supply depot for vessels journeying between Japan and America.

The value of the group of islands as a

military base was strikingly illustrated during our war with Spain, and authorities have frequently declared that Pearl Harbor is capable of conversion into the finest naval station in the world. To the geographical position which creates these commercial and strategical advantages the Territory adds such superior conditions of climate and soil as to insure its perpetual prosperity, provided political and labor complications do not act as a brake to its progress.

In the matter of area the Hawaiian group is one-sixth larger than Porto Rico, but the population of the latter island is seven times as great as that of the Territory. At the time of his discovery of the islands Captain Cook estimated the number of their inhabitants at 400,000. Since then they have decreased rapidly, owing to the introduction by the whites of epidemic diseases, such as small-pox and measles, until in 1875 the population had fallen below 60,000. Although immigration produced a reaction, the decline



MAP OF THE HAWAIIAN ISLANDS.

(There are a few minor islands, mostly uninhabited.)

among the natives continued with a gradually decreasing rate of progression. To-day the aboriginal element remains practically stationary, if allowance is made for the detachments occasioned by marriages with foreign races.

ASIATIC ELEMENTS IN THE POPULATION.

The first trade relations of Hawaii were with China, to which country it made large shipments of sandalwood. Early in the nineteenth century Chinese began to settle in the islands, and to one of these newcomers is said to be due the credit of first having manufactured sugar from cane grown in Hawaii. The cultivation and reduction of sugar cane became an industry of importance about the middle of the last century and took the place of the whale trade, which began to decline at that period. It was soon apparent that dependence could not be had upon native labor, and the government entered into a treaty with Japan guaranteeing a bonus on every Japanese man or woman imported. The planters paid from \$12 to \$15 a month to each laborer and furnished comfortable quarters, fuel, water, and medical attendance free. At the end of his contract term of three years he was at liberty to return to his native land.

Under these conditions the influx of Japanese became so great that an effort was made

to check it and to encourage instead immigration from China. The movement had been in operation but a few years when it was brought to an abrupt close by the annexation of Hawaii and its subjection to the Chinese Exclusion law of the United States. In the meanwhile efforts had been made to secure labor from various parts of the world, including Germany, Norway, Sweden, Portugal, Spain, Italy, the Azores, Madeira, and Porto Rico, besides which Americans, British, and negroes from the United States had come in small numbers. In the fifteen years preceding annexation the government of Hawaii expended \$1,500,000 and the planters' association an equal amount in the promotion of immigration, but with the amenability of the Territory to the laws of the United States prohibiting contract labor the movement necessarily ceased.

As a result of these measures to supply the demand for labor we have in Hawaii the most extraordinary composition of population to be found within our borders. More than half the people of the islands are Asiatics, professing some Oriental religion, and less than 5 per cent. of them are native Americans.

The school census of 1908 gives the population of the Territory as 200,000, while in the report of Governor Frear for the same year it is estimated at 170,000. Probably an



FIELDS OF TARO. BACK OF HONOLULU, THE FAVORITE FOOD OF THE KANAKAS.

average would be very near to the exact figures, and the following statement is derived from reliable sources:

Chinese	20,000
Japanese	75,000
Koreans	5,000
Orientals.....	100,000
Portuguese	27,000
Spanish	3,000
Porto Ricans.....	2,500
White foreigners.....	32,500
Hawaiians, including half-breeds.....	37,000
Americans, British, Germans, etc.....	12,000
Various Pacific islanders.....	2,000
Total.....	183,500

In explanation of the foregoing division it must be stated that it has long been the custom in the islands to classify the population according to descent. Thus the third generation of an English family remain British in popular conception. Of course, all the natives and a large number of the Asiatics are American citizens.

Although immigration from Oriental countries has practically ceased, the number of Asiatics is increasing by natural process at a rate greater than that experienced by any other race, except the Portuguese. Part Hawaiians are ever becoming more numerous. They spring, as a rule, from unions of native women with whites and with Chinamen. The Portuguese and Japanese seldom marry outside of their own race. The results of these mixed marriages are generally good from the physical point of view. In the course of time part Hawaiians will outnumber full bloods and the latter will ultimately disappear. Small additions are made annually to the ranks of the native-born Ameri-



A NATIVE SPONGE-GATHERER.

cans, but the increase in their numbers is not considerable. Under present conditions Hawaii is not a promising field for any class of our countrymen. Individual capitalists, professional men, mechanics, and farmers do find good openings, but they are the exceptions rather than the rule.

However, the resources of the country are by no means fully developed and, with economic changes that are in prospect, the Territory should become one of the most attractive places to the homeseeker.

THE SUGAR PRODUCT.

Hawaii is in the somewhat precarious situation of having all her eggs in one basket. The sugar industry is practically the sole dependence of the islands. The entire population is interested in it. Those who are not



A TYPICAL HOME IN THE ISLANDS.

actually engaged in the business have money invested in it or derive their livelihood from sources that are contingent upon it. The most common form of speculation among the islanders consists in buying and selling the stocks of the various sugar companies. One-fourth

of the population is actually employed on the plantations and several thousands more in closely allied industries. Good times and hard are measured by the rise and fall in the price of sugar. The aggregate capital employed in the industry amounts to \$150,000,000. The value of the exports from the Territory during last year was \$42,000,000, of which 95 per cent. represented sugar.

Of late years the cost of labor has risen, coincident with a drop in the price of the product, and the business is at present in a far from prosperous condition. It would, in fact, have been ruined ere this but for the enterprise of the planters, who have constantly offset adverse developments by improved methods of manufacture and more intense cultivation. Whereas twenty years ago the average yield of commercial sugar was about 10 per cent. of the weight of cane



HAWAIIAN SUGAR CANE IN BLOOM.

consumed and the average yield of cane was 25 tons to the acre, at the present time 100 pounds of cane are made to give 12 pounds of sugar and the average yield of the acre is 40 tons. But in the consideration of these figures it must be understood that the Hawaiian crop takes an average time of twenty months to mature.

HANDICAPS OF THE CANE-GROWER.

Sugar cane cannot be raised in Hawaii on capital less than \$100 per acre, and some plantations are capitalized at six times that amount. Each of the islands is divided into two distinct climatic zones. On the eastern,

or windward, side of each the rainfall is copious. On the leeward side it is not sufficient for intensive agriculture. The best sugar lands are on the arid sides of the islands, where the application of water by artificial means is necessary to successful cultivation. There are few surface streams available for the purpose, as the broken and porous character of the lava beds which cover the islands tends to underground flow. Therefore, the greater part of the water used is secured by expensive processes, such as tunneling, fluming, and



RAILROAD ON THE EWA SUGAR PLANTATION.

pumping. The average cost of irrigation is \$140 per acre, as compared with about \$35 in our Western States. Another heavy expense is incurred in fertilizing, which averages \$4.65 per ton of sugar produced or \$22.20 per acre under cultivation.

The industry labors under the burden of heavy transportation charges. The United States laws require that the output shall be shipped solely in American bottoms. The planters have never been able to secure sufficient tonnage to carry their entire export round Cape Horn, and at least one-fourth of the crop must be sent to our Eastern markets by way of San Francisco and a transcontinental railroad line.

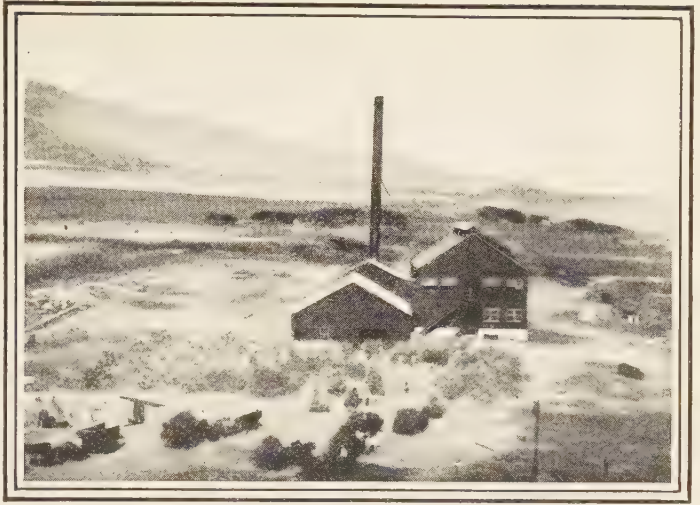
THE LABOR SUPPLY.

The proportion of labor in the total cost of producing Hawaiian sugar is 60 per cent., and any considerable increase in that direction would destroy the profit in the business. Low wages are more than ever essential to the preservation of the industry, and the cane fields must be worked by aliens if they are to be kept in cultivation at all. The indigenous population is not equal to the demand and, as a matter of fact, does not meet

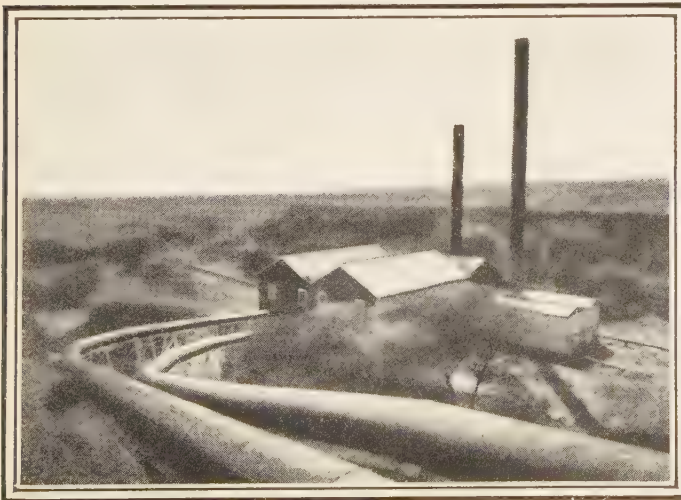
it in any appreciable degree. The Kanaka has a distaste for agricultural pursuits and, despite his robust appearance, is seldom equal to the work of the cane fields. The Chinese, who would be most acceptable to the planters, may not be brought into the country. There is no desire to increase the numbers of the Japanese. The Portuguese, who have proved to be on the whole the most satisfactory of all laborers tested, are deterred by the expense of the journey from going to the islands on their own initiative.

Under these circumstances the supply of labor has been cut off and the sugar industry is already beginning to suffer for lack of it.

This condition has been accelerated by the desertions from the cane fields. Comparatively few Portuguese are now employed on the plantations. With their habits of thrift and their customary practice of making every member of the family work, most of them have saved enough to buy a little land and set up on their own account as farmers. In the same way the Chinese have mostly abandoned the service of the planters for fields of independent effort and are engaged in a variety of occupations. Many have become mechanics and shop-



SUGAR MILL, WAILUKU.
(Part of the Spreckels estate.)



ONE OF THE EWA PLANTATION PUMPING STATIONS.

keepers, but the majority are to be found cultivating rice and taro on leased lands. Thus the Japanese have virtually a monopoly of the labor supply of the staple industry of the country.

The Japanese have long been alive to the advantage of their position and have systematically worked to strengthen it by organization, periodical strikes, discouragement of laborers of other nationalities, and various other means. In marked contrast to the Chinese, they have always been unruly and aggressive. In former strikes they have created riots and would on more than one occasion have resorted to extreme violence but for the intervention of their consul with threats of deportation and severe punishment. A few years ago they sent four or five of their number to the United States for the purpose of studying the methods of labor unions. These men, who are now their leaders, have adopted a shrewd policy. They discountenance extreme measures, such as complete and prolonged strikes, which would be apt to kill the bird that lays the golden eggs, but advocate striking at frequent intervals and critical periods, by which means they hope

to gain by degrees the utmost concessions that the business can be made to afford.

The Territorial government recently devised a plan that will, it is hoped, create for the planters an avenue of escape from the threatened domination of the Japanese field hands. Whilst the federal statute on the subject prohibits the States from creating special funds or accepting contributions for the purpose of promoting immigration, it is believed that the proceeds of general taxation may be applied to the object without violation of the law. Acting on this idea a general income tax has been levied and, with the means thus placed at his command, Mr. A. J. Campbell, Treasurer of Hawaii, is now in southern Europe recruiting laborers. It is designed first to supply the existing deficiency, then to overcome the preponderance of Japanese, and ultimately to gradually supplant them with whites. The consummation, if ever attained, must be the work of many years.

HAWAIIAN CITIZENSHIP.

With all its gravity, the labor situation is not fraught with such great menace as the political outlook. At the present time there



ROAD THROUGH A BANANA AND COFFEE PLANTATION.



A WAGON ROAD, SHOWING THE CHARACTER OF THE ROADS OVER WHICH THE HOME-STEADER CAN BRING HIS PRODUCE TO MARKET.

are fewer than 14,000 voters in the Territory. Of this number 9000 are Hawaiians, or half-breeds, and 2000 native Americans. Only a few hundred are Asiatics. But the composition of the voting population of Hawaii will be greatly changed as the younger generation reaches manhood. In the citizenship of the future, say fifteen years hence, as indicated by the nationalities of the children, Orientals will occupy an important place.

Of the 25,000 children attending the public schools of the Territory 24 per cent. are Japanese; 11 per cent. are Chinese; 35 per cent. Hawaiian and half-breeds; 19 per cent. Portuguese, and less than 5 per cent. native Americans. In the Oriental, Portuguese, and native classes the increase is at the rate of more than 15 per cent.; in the American and Teutonic classes at little more than 1 per cent. The laws of the Territory require all children between the ages of six and fifteen years to attend some school. In this connection it is interesting to note that Hawaii was years ago confronted with the problem which has lately exercised the school authorities of California. It was solved by rigidly excluding Asiatics of sixteen years and over from

the grade schools. On the other hand, every effort is made to secure the regular attendance of the children of Oriental races who are probable future voters and to educate them to American ideas and principles.

The organic law of the Territory confers practically universal suffrage, there being no restriction on even the lepers of the Molokai settlement. Ability to understand English is not necessary in order to qualify as a voter, although that is the only language taught in the public schools, and compulsory education has been in force throughout the country since 1850. All male children, therefore, born in the Territory since June 14, 1900, will be entitled to vote upon coming of age.

The change in the proportionate strength among the different classes of voters will leave the Hawaiians in their present position of numerical preponderance, but it will bring the Orientals into almost equal standing. The natives have little initiative or independence in their make-up. Politically they will be plastic material and are almost as likely to be influenced by the Asiatics as by the whites. The Chinese bid fair to make intelligent and useful citizens. Many of this



BANANAS AS GROWN IN THE BACKYARDS OF THE HOMES AND RAISED ON SMALL PLANTATIONS.

race are well-to-do, have adopted our customs and manner of living, and are bringing their children up to become Americans in every sense of the word. School-teachers throughout the islands agree that the Chinese children and those of Chinese-Hawaiian parentage are the brightest and most promising in their charge. Business men find Chinese youths the best available for filling positions demanding exceptional honesty and intelligence. The Portuguese are equally likely to develop into desirable citizens and intelligent voters. The menace of the future lies in the prospective political power of the Japanese.

HOW MAY HAWAII BE AMERICANIZED?

The undesirable conditions of population, political prospect, and labor in Hawaii have

led the federal Government to the consideration of measures for the Americanization of the Territory. The most effective, if not the only feasible means available would seem to be the reclamation of certain portions of the extremely rich lands of the islands and their conversion into homesteads which farmers from the mainland may settle upon. It is estimated that 100,000 acres, now practically useless, can by irrigation be rendered highly productive. This would furnish 5000 farms having an average size of 20 acres. Such a holding, under the conditions of soil and climate prevailing in Hawaii, would suffice to support a family in comfort. The occupancy of the entire area, when so subdivided, would create an addition of 20,000 to the population, including 5000 property-owning voters. If the project is carried to success there will be no difficulty about finding fertile public land for the extension of the movement.

It must be admitted that every effort in the past to establish agricultural settlements of Americans has failed, but the experiment has never been made on the basis of actual ownership and home-making. The causes that operated against former ventures of this description can be minimized in the government enterprise or entirely eliminated from it. American pioneers of the kind who are developing the arid regions of the West with such marvelous rapidity would find an attractive field in Hawaii. The natural conditions are distinctly favorable to the success of the small cultivator. A variety of agricultural products can be raised for which profitable markets are open. Among the advantages are a fine climate, excellent educational facilities, and a government which is disposed to further the interests of settlers in every possible manner. The difficulties to be encountered are those experienced by every new community and not unlike those constantly met and overcome by the homesteaders on the reclamation projects of our Western States.





ONIONS ON DRAINED MUCK LAND, NEW YORK.

(Grass and grain soil in the background.)

MAKING BETTER USE OF OUR SOILS.

BY HUGH HAMMOND BENNETT.

(United States Department of Agriculture.)

WILL the soils fail to produce food and clothing for our rapidly increasing population? Have we been so extravagantly wasteful in the use of our soils? Has not the real development of our lands just begun? Have we not just turned the virgin soil? Let us take an account of stock,—look into the possibilities of our greatest national asset, the soil, which for all time to come is to be the basis of human welfare. If our fields are being abused to the point of exhaustion, let us remove the cause; if the yields are too low, let us seek the remedy, for we all concede it to be the moral obligation of a progressive nation to guard carefully all those sources of man's welfare as the rightful heritage of posterity. Any thought of the future of the nation suggests the absolute necessity not simply of conserving the soil, but of increasing its power to produce beyond past and present averages.

From the standpoint of the most reliable and recent investigations and information, our land, handled in accordance with certain natural laws that determine its proper utilization, will not only furnish food and clothing for an immensely greater population for ages, but will supply fuel and light and power when coal and petroleum shall have been exhausted. But we must look to better methods of soil usage, for the alternative

of bringing under cultivation unused and abandoned lands and lands reclaimable from arid or swampy conditions, although adding a vast total to our cultivable fields, will not always suffice to meet the growing demand. Already many sections of congested population are calling upon outside sources for food and many of the large cities at times actually suffer from vegetable famine. Such shortages are due to more or less local and abnormal conditions, but might become general and permanent unless wise foresight should make provision for the feeding of our rapidly increasing population.

The producing possibility of our cultivable lands becomes almost inconceivable to the mind when we consider that only a small proportion of the land nominally in farms is actually under cultivation and that our acreage yields are ridiculously low in comparison with those of highly developed agricultural countries like Germany, France, and England, notwithstanding that our soils are naturally as productive.

At the average rate of twenty bushels of wheat per acre (which is much less than the average yield of either Germany or England), the State of Illinois, with a few Indiana counties thrown in for good measure, cultivated exclusively to wheat would produce annually more of this product than does the en-

ture country. If Ohio and Iowa's 76,784 square miles of improved land (Census, 1900), with a 17,658-square-mile-strip of Kansas, should be planted in corn, there would be harvested, with an acreage yield of fifty bushels, 3,022,144,000 bushels, an amount practically equal to the total 1906 corn crop of the United States, Canada, and Mexico.

With the 10,615,644 acres of Georgia's improved land producing a bale of cotton per acre, the yield would amount to nearly as much as the total annual cotton crop of the country; and yet a large part of the 15,776,413 acres of so-called "unimproved farm land" in Georgia can be made to produce as well as the best land in the State, with still a balance of 11,191,943 acres of unclassified land, of which a portion only is irreclaimable to agriculture.

MUCH LAND TEMPORARILY BUT NOT PERMANENTLY IMPAIRED.

The total acreage of the United States in farms as given by the Twelfth Census was 838,591,774 acres, of which 49.4 per cent. was classed as improved farm land. The large proportion of "unimproved farm land," including that not under the plow, simply affords a partial measure of the vast field for agricultural development, for it by no means stands for that much waste land, since the greater part is arable and needs only intelligent treatment to be made first-class farm land. Aside from the large total of unused arable and reclaimable lands included in the 1,064,869,986 acres of the unclassified portion of continental United States, exclusive of Alaska, the rehabilitation of a very large area of the so-called "worn-out lands" of the country rests simply in the application of modern ideas of soil management.

It is true that a considerable total area has been ruined temporarily or seriously injured for strictly agricultural purposes by erosion, as the result of deforestation, steep-hillside cultivation, or failure to provide against surface wash; but it is difficult, if not impossible, to find, purely as the result of cropping, any soil so thoroughly worn out that the word "exhausted," in its literal sense, may be applied to it, and the term has no place in the language of the up-to-date farmer. There is much land that has deteriorated under abuse to a point where further cultivation in accordance with past methods is unprofitable; some fields are in a

bad state, of repair, but few are in an irremediable condition. The hardest used soils of eastern and middle Virginia, even those of the old "glebe farms" which have been under cultivation almost continuously for more than two hundred years, are susceptible of rapid improvement under good methods of treatment wherever the hand of the hustling farmer strikes.

That the old-style methods have impaired the producing power of much land by reducing it to a condition unfavorable to healthy plant development, without necessarily having caused material change of the inherent fertility, is shown by the increased yields secured immediately by better cultivation without addition of fertilizers. It has been conclusively demonstrated that the acreage yields of wheat on the highly productive prairie soils of southern Minnesota, which in some instances have been reduced to a point of unprofitableness by continuous wheat-growing, can be increased materially simply by growing a crop of corn; and that the yield can be further increased by a rotation including wheat, corn, and clover. To express it differently, the so-called "wheated out land" simply needs a change: it may be the correction of an unsanitary condition, brought about by more thorough cultivation to aerate the soil; it may be the destruction of noxious weeds by inter-tillage cultivation; it may be the replenishment of healthful organic matter by growing clover; or it may be the combined effect of all these together with other results secured by a change of crops; anyhow, the old way of growing wheat continuously will not answer.

METHODS OF FARMING IMPROVING.

Notwithstanding the fact that agriculture has declined in some sections and farms have been abandoned in others, when the country is considered as a whole the methods of farming are seen to be gradually and persistently improving. "In 1890 the 8,565,000 people engaged in agriculture in this country produced a total of \$2,466,000,000, or an average of \$287 per capita. In 1907 the 11,991,000 engaged in agriculture produced a total of \$7,412,000,000, or an average of \$618 per capita. During that period the number of people engaged in agriculture increased by 40 per cent., while the value of farm products increased by 200 per cent., and the value of all farm property increased by 89 per cent." This increase in the value of farm products, so disproportionate both to in-

crease in the number of individuals engaged in agriculture and to higher prices received for agricultural products, bears convincing testimony to an improvement in farm methods.

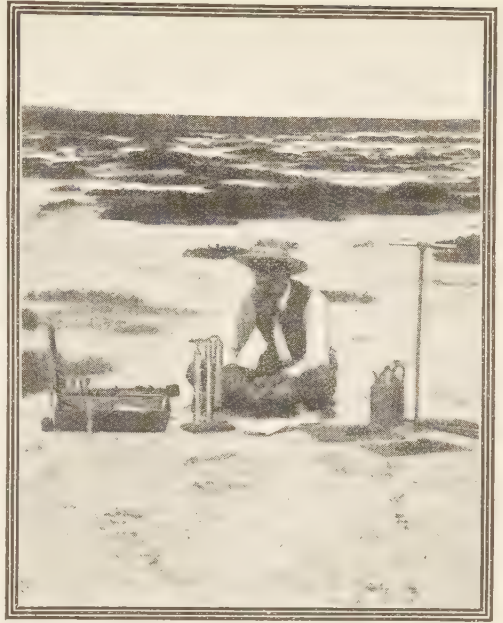
The boll weevil scourge scattered consternation among Texas cotton planters, and many sold their farms at ridiculous prices to seek new homes; but the more resolute, encouraged by the National and State Departments of Agriculture, remained and fought out the battle. The pest proved to be a blessing in disguise,—the means of urging the farmers to find out that their lands were suited to other crops than cotton and corn and that their methods needed improvement.

THE PROBLEM OF SOIL ADAPTATION.

There is yet vast room for betterment, both in the further distribution of present scientific knowledge among farmers and in the working out of innumerable unsolved farm problems. One of the most important problems, and one that has received far too little attention, is that of soil adaptation,—the very basic principle of scientific agriculture. In the past too often have we treated all soils alike, fertilizing and cultivating them in the same way and growing indiscriminately any kind of crop on all kinds of soils. We have taken no cognizance of those differences which make one kind of land suited to some particular crop; nor have we adapted our methods of culture and fertilization to different types of soil.

Light sandy soils produce better and earlier vegetables than do heavy clay soils; the intermediate loam types are better suited to general farm crops like cotton, corn, and wheat, while clays and clay loams are best adapted to grass and forage crops. But the average farmer little heeds such matters, often depending upon season, fertilizer, or good luck to overbalance any mistake arising from his own shortsightedness. He too often knows nothing of the character of the soil below the furrow slice, although land underlain by a stiff clay may be suited to an entirely different crop or method of cultivation from a soil resting on a sand bed.

The utilization of the lands of the nation in exact accordance with those laws of plant adaptation which are determined by soil environment opens a field of almost unlimited opportunities for advancement in agriculture,—a field that until comparatively recent years has been given only slight recognition



ANALYZING SOIL FOR ALKALI, VENTURA COUNTY, CALIFORNIA.

by the students of agriculture. It is high time to lay aside those hit-or-miss methods which, though they may have been good enough for our forefathers with an abundance of productive virgin land, cannot be employed by our modern agriculturist.

THE WORK OF THE SOIL EXPERT.

It was with the primary purpose of correcting this old-style, chance farming that the Bureau of Soils, of the national Department of Agriculture, some ten years ago began to make a survey of the agricultural lands of the United States, by which it was proposed to locate and map every distinct and different area of soil in the country and to point out the exact crop adaptation and value of every soil type. In one sense this work amounts to an inventory of our arable lands, taken in order to show what we have in stock and what profits have been derived therefrom. Already about 100,000,000 acres have been mapped. Surveys have been made in nearly every State, and there have been studied over 700 distinct types of soil, each one differing from the other to such a degree that no two are either equally suited to the production of the same crops or are equally affected by the same cultural method.

The soil mapping is done by men who have had training at the best colleges and univer-

sities, and who are familiar with the details of practical farming, as well as with the sciences of chemistry, geology, meteorology, and civil engineering. Incidentally these experts must be hardy fellows, capable of handling any emergency from the fording of unfamiliar swollen streams or traversing marshes and swamps to the doctoring of a sick horse upon the desert. The men who, last summer, made a reconnoissance soil survey of that portion of North Dakota to the west of the one hundredth meridian camped out on the plains for weeks, sleeping in the open or in sleeping bags, often a hundred miles from their working base.

In the survey of an area (usually a county), the expert makes such frequent examinations of the soils to a depth of three feet as will enable him with the aid of a surveying outfit to delineate on a map, in different colors, each distinct type of soil. He will encounter not simply sand, sandy loam, silt loam, clay loam, clay, and the various classes of soils based upon relative content of sand, fine sand, silt, clay, etc.; but he will encounter black sands and gray sands, red clays, black clays, and white clays, productive sandy loams and sandy loams too highly impregnated with alkali salts for the abidance of plant life; overflowed silt loams and well-drained upland silt loams; rough stony land unsuited to other than forestry purposes; broken lands adapted only to grazing, and "bad lands" without agricultural value.

Samples of each type of soil are forwarded to the laboratories in Washington for the purpose of verifying the field man's observations and for supplying such additional information upon the character of the soil as may be derived from analytic examinations. In the alkali regions of the West where, in addition to the regular soil maps, alkali and water-table maps are made, it is necessary for the expert to determine by chemical analysis on the spot, the percentages of the various alkali salts injurious to vegetation and to ascertain the depth to the underground water level by boring.

Each soil is named and shown on the maps in a distinct color, so that any one may determine the character and crop value of a tract of land at any location by a glance at the map. Accompanying the map in pamphlet form is a report which sets forth the specific crop adaptations and correct cultural method for each soil. These pamphlets are distributed free to the farmers of the area surveyed and to outside persons interested in settling or buying land within the limits of the area.

VARIETY IN SOILS AND SOIL ADAPTATIONS.

The Orangeburg group of soils, including all those grayish-brown soils having red sandy clay subsoils, which occur in large bodies throughout the Atlantic and Gulf Coastal Plain regions of the South, are the best upland soils for short staple cotton, and under



WHEAT ON ALKALI LAND, ONE YEAR AFTER RECLAMATION TREATMENT, SAN JOAQUIN VALLEY, CAL.



GLACIAL REGION TOBACCO SOILS IN WISCONSIN.

the proper climatic environment are the best peach and cigar-filler tobacco soils. The Norfolk group of soils, which comprises those gray lands having a bright yellow sandy clay subsoil, are the best trucking lands of the entire South Atlantic and Gulf Coast country. The black, poorly drained Portsmouth soils of this region, though unpro-

ductive in their natural state, are when drained excellent strawberry, cabbage, and corn soils; while on the other hand the black "prairie" lands of Alabama, Mississippi, and Texas, derived from a different geological formation, are not at all suited to vegetables, but produce splendid crops of alfalfa.

LIMESTONE SOILS IN THE RICHEST AGRICULTURAL COUNTY OF THE UNITED STATES.
LANCASTER COUNTY, PENNSYLVANIA.

Here in one geological region or soil province,—the Atlantic and Gulf Coastal Plain country,—are four series of soils having entirely different crop values. In each of these series there are upwards of a dozen types of soil, each type differing from the other in crop adaptation and value. The Norfolk sand is a fine early truck soil having but little value for grass, while the Norfolk silt loam is an excellent grass soil with only slight value for truck crops.

The Norfolk fine sandy loam of southwest Georgia and adjacent Florida territory produces a type of cigar-wrapper tobacco which can scarcely be distinguished from the imported Sumatra leaf, and this is the only soil found there that does produce this high-grade wrapper tobacco. The associated Orangeburg fine sandy loam of that section, though producing a cigar wrapper of inferior quality, makes a very fine grade of the Cuban cigar-filler type, excelled only by the very best leaf produced on the best lands of the most favored tobacco districts of Cuba. Sugar-cane sirup from the Norfolk fine sandy loam of this section has a delightful flavor, and possesses the bright color demanded by the trade, while that made from cane grown on adjoining fields of Orangeburg fine sandy loam has a dark color and inferior flavor.

Going from the Atlantic Coast country into the adjacent higher Piedmont section, a new set of soil conditions is encountered: instead of soils made up of materials deposited in a former sea which covered the Coastal Plain, we find here soils consisting of the residues of rock decay. The hard rocks of this region like the granites, gneisses, and gabbros, subjected to the action of rain, frost, ice, plants, molds, fungi, etc., for thousands of years, have crumbled down in place and finally through decomposition processes give rise to various grades of "red" and "gray" soils differing widely from each other and from the Coastal Plain soils in their relation to crop production and requisite cultural methods.

So on through all the great land divisions of the country each series of soils and the different types of the same series are suited best to some special crop, group of crops, or some particular kind of cultivation. There are the many soil groups and soil classes of the Appalachian Mountain and Alleghany Plateau regions, the limestone valleys and uplands, river and lake terraces, the Western Prairie Region, the Great Basin, the North-

western Inter-Mountain Region, the Rocky Mountains, the arid Southwest, volcanic-ash sections, wind-blown sand and silt regions, and extensive alluvial flood plains.

CLIMATIC EFFECT.

Aside from knowing the absolute effect of soil, correct soil usage requires that the grower take into account the climatic environment,—the effect of latitude, altitude, etc. The soil, for example, that produces a high-grade Sumatra cigar wrapper in Florida and southwest Georgia will not produce this type nearly as well in eastern North Carolina, but does produce an excellent quality of the "bright tobacco" used in the manufacture of cigarettes and granulated smoking tobacco. The delicious Albemarle Pippin apple of Virginia succeeds best only on a black loam soil in sheltered mountain coves between 1000 and 2000 feet elevation. In the lower elevations of the North Carolina fruit belt the coves on the north side of mountain slopes are best suited to fruit, while the coves with southern exposure require a higher altitude to give the required climatic environment. Peaches do well on the "Eastern Shore" and in the mountains of western Maryland, but are generally unsuccessful on the intervening Piedmont Plateau where frosts are apt to kill the early fruit buds.

DIFFERENT VARIETIES OF THE SAME CROP REQUIRE DIFFERENT SOILS.

Anything like an accurate estimate of the loss to American farmers through lack of knowledge in regard to exact adaptations of soils to crops and varieties is impossible, but the figures would no doubt be startling. The most successful farmer of the future will recognize that soils are not only unequally suited to different crops, but also to different varieties of the same crop, as in case of the cigar-wrapper and filler types of tobacco.

The Illinois Experiment Station in testing wheat varieties found that the Turkey Red with a four-year average of 38.6 bushels per acre in central Illinois, only yielded 11.4 bushels, or 5.17 bushels below Fulcaster wheat, in a three-year average in southern Illinois. Now there is little difference in the climate of these portions of the State, but there are vast differences between the well-drained black silt loam of the central part and the light-colored, poorly drained silt loam of the southern part of Illinois. The farmer of southern Illinois, not understanding the differences in variety adaptations



COTTON ON MISSISSIPPI ALLUVIAL LAND.

of these two markedly different soils, would be losing money at the rate of over five bushels of wheat for every acre cultivated to the Turkey Red variety.

The results of experimental work have shown that the amount of lint produced by a variety of cotton originated and improved upon a particular soil is not infrequently reduced to less than one-half when planted upon a distinctly different soil. There are countless instances similar to the experience of two neighbor farmers who, growing King's improved cotton as an experiment, using the same fertilizer and cultural methods, got entirely different results,—the one made better yields, while the other lost by the change to the new variety. The loser went back to his old cotton without suspecting or even attempting to learn that his failure was the result of using the wrong kind of soil. The successful farmer planted on Cecil clay, a cold-natured soil, slow to bring plants to maturity; hence his success with the early maturing King's improved. Sea Island cotton, a native of the southern Atlantic Coast, when grown on the interior upland soils rapidly loses its identity and length of staple.

MANURIAL REQUIREMENTS VARY WITH SOIL.

Of the \$80,000,000 to \$100,000,000 annually spent by the American farmer for fertilizers, it is safe to conclude a good proportion is partially or entirely wasted through indiscriminate use. The average farmer pro-

ducing the general farm crops pays little attention to the individual manurial requirements of soils, rarely checking upon the comparative benefits derived from varied mixtures on different types of land. An application of potassium sulphate, though highly beneficial for corn grown on certain black mucky lands, may be of no value to corn on an adjoining field of gray land, yet many farmers noting the good results of this fertilizer on one field would use it over an entire farm. Ground phosphate rock may be of much benefit to certain crops on one type of soil and of no value on another type, which perhaps may require applications of the acid-treated rock or "acid phosphate." One soil may need a phosphatic fertilizer, another potash, nitrogen, or lime, and still another a mixture of two or of all these fertilizing materials.

The stiff, black bottom-land, known as Wabash clay, which contains but little lime, is wonderfully improved by the addition of lime. There is in Texas another alluvial soil, a chocolate-colored, crumbly clay, called Miller clay, which does contain considerable amounts of lime. This type, which is one of the best cotton soils in the world, has been shown by the Bureau of Soils to be only mildly benefited either by simple liming or by addition of commercial fertilizer, but is improved materially by turning under green cowpeas.

Innumerable failures unquestionably have

resulted from unwise and indiscriminate use of chemical fertilizers which, notwithstanding that they have their proper place in the growing of crops, frequently are to be counted upon merely as accessory agencies for the maintenance and improvement of soil productivity. Too many farmers are drifting along in a half-hearted way, hoping for a turn of fortune through the discovery of some magic fertilizer, or through the revelation by a chemical analysis of "exactly what fertilizer the land needs." Lately an agricultural writer said, in effect: "Nowadays it is only necessary for the would-be successful farmer to take a pinch of soil here and there from his farm, send the mixture to a chemist, and receive in reply full instruction as to the kind of crops to grow and fertilizers to use." In the light of recent knowledge such teaching is harmful, and it is high time for the American farmer to know that with all the variety in soils that is possible on a single farm, there would be derived by carrying out the above instructions about as much good as would result from the analysis of a mixture of apples, pumpkins, and grapes to determine the chemical composition of the pumpkin.

The Illinois Experiment Station recently published the following statement on the subject of soil analysis:

Analyses of miscellaneous samples of soil collected by unauthorized and untrained persons, by inaccurate and non-uniform methods, usually imperfectly representing even a definite stratum from a single field, or sometimes a mere patch of ground, might be of little value even to the owner of the piece of land, and probably of no value to the agriculture of a State; while to attempt to do such work would only delay the progress of the systematic detail soil survey which . . . is being made to cover every type of soil on every farm.

In order to bring about an intelligent use of fertilizers, according to the present knowledge on the subject, it will be necessary to determine by field experiment the effect of the different fertilizing elements and the amounts it is advisable to apply and to show the farmers how to make use of these results on the different kinds of soil they may have, these having been located on the soil map.

UNLIKE CULTURAL METHODS FOR UNLIKE SOILS.

That the American farmer is lacking in systematized knowledge regarding cultural methods is evidenced by the fact that one



CORN ON THE WRONG SOIL.



CORN AND COWPEAS ON GOOD CORN LAND.

great school of agriculturists unqualifiedly opposes fall plowing, while another taking the opposite side as strongly advocates the practice universally, whereas the actual merits or demerits of fall plowing are determined by the kind and condition of the soil. For instance, there is no better way to put a compact, heavy soil into excellent condition of tilth than to plow in the fall so as to expose the upturned stratum to the beneficial action of winter freezes. The silt loams of Eastern Shore, Maryland, which are so inclined to harden that, in local parlance, "the land freezes in summer and in winter," can be greatly improved by fall plowing and by turning under coarse vegetable manure to open up the soil. On the other hand, there evidently would be no benefit derived from fall plowing a deep, loose sandy soil except to turn under needed vegetable matter; for the reason that it is naturally an open soil not in need of aeration.

EXPERIMENT STATION AND FARMER.

The State experiment stations are doing excellent work along the line of improving methods of fertilization and cultivation, plant breeding, etc., upon certain types of soil, but when we take into consideration the fact that a State may embrace a hundred or more dif-

ferent kinds of soil, the question arises: How are the farmers on these different types to take advantage of the experiment station results? The results of soil experiments are correctly applicable only to the specific soils upon which the experiments are made. Manifestly, then, the results may not be of value to any particular farmer unless he is located on the same kind of soil as that at the station upon which the experiments were conducted.

It would be of no special advantage to a farmer who cultivates deep Norfolk sand to receive a bulletin setting forth the good results secured from a particular method of fertilizing and plowing a stiff clay loam, for wheat, because, in the first place, wheat cannot be grown profitably on Norfolk sand, and secondly, the fertilizer or character of plowing suited to a stiff clay loam is not at all the kind that a loose sandy soil requires.

In order to carry out any experimental work with fertilizers, crop varieties, crop rotations, etc., which would be beneficial to the greatest number of farmers throughout a State, it is necessary to know the soils of the State and to establish experiment stations at different locations upon those grades of land shown by the soil map to be the important types of the State. By having a soil map, an experiment made upon a red clay in one

part of the county or State could be applied successfully by a farmer who cultivates the same red clay in another part of the county or State. The North Carolina Experiment Station is establishing sub-stations throughout the State upon the more important soils as determined by the Government soil surveys in order to secure results beneficial not to one section, but to the whole State.

The successful methods of growing dark export tobacco, wheat, and hay as worked out by the experiment farm at Appomattox, Va., where 1650 pounds of tobacco, twenty-nine bushels of wheat, and five tons of field-cured hay were secured per acre, which yields much more than doubled those under the old-style methods, can be more clearly understood by the farmers of the county and more correctly applied by assistance of the Government soil map of Appomattox County, showing the location of the soils on which the experiments were made. This experimental work would be of still more value to the farmers growing dark export tobacco if there existed a soil map of the whole region producing that type of leaf.

SOIL SURVEYS AND SPECIAL CROPS.

The type of soil on which tea is being grown in South Carolina has been mapped in several parts of the South, and should tea culture prove a profitable industry it would be a simple matter to locate on a map all the soils adapted to its production. All through the lower part of South Carolina and Georgia are large areas of black land, easily reclaimable from present poorly drained conditions, which are not only unused to any extent for agricultural purposes, but are an actual menace to the health of the section on account of the hordes of mosquitoes they breed.

Soil surveys covering cultivated portions of these black soils already have shown that when drained and properly managed they are specially suited to the production of strawberries, cabbage, onions, and celery; and it is believed that experiments will show these same lands to be as well suited to the culture of upland rice as are the flat prairie lands of Arkansas and Louisiana. At a sub-experiment station, in the eastern part of South Carolina, it has been shown by a survey of the soils that typical areas of these unused black lands exist; therefore any valuable results accruing from experiments there can immediately be applied toward the development of these lands.

Some years ago when Sumatra cigar-wrapper leaf was being grown so successfully in Florida, the producers claimed that outside of a restricted area in one county the soils were unsuited to the production of this type of tobacco. It was shown by soil surveys that there was, outside the supposed favored belt, a considerable extent of the same soil; and since the completion of these surveys this industry has spread over several counties in Florida and Georgia. The 1902 crop of Florida Sumatra wrapper, grown on 3079 acres, amounted to 1,601,080 pounds, valued at \$480,324; the 1907 crop from 7500 acres turned out 6,937,500 pounds, worth \$3,122,000,—in other words, as the result of the soil surveys the tobacco acreage in Florida alone was more than doubled in five years; the production was multiplied four times and the value six and a half times. Investors basing their judgment upon the Government classification of the soils hastened to acquire and develop these lands, and coincident with an extension of the tobacco industry values jumped from \$8 to \$10 to \$75 or \$100 per acre.

The deep sandy soils of the Atlantic and Gulf Coast country, which a few years ago were considered practically worthless, are being used extensively for the production of early vegetables. A vast total area of these truck lands has been mapped and their value pointed out by the Bureau of Soils, with the result that, in some cases, the acreage valuation has risen from practically nothing to \$100 or more. It was on these lands, supposedly worthless, in the vicinity of Wilmington, N. C., that there were lately established colonies of immigrants, who are producing vegetables with great success.

The story of disappointed settlers attracted to new and untried regions by unscrupulous land agents is a sad one, a repetition of which should be avoided by extending soil surveys to determine the actual soil resources, possibilities, and needs of all sections of the country. With the assistance of soil maps and reports already available a mistake in the matter of selecting cigar-wrapper tobacco land in the surveyed portions of Florida and Georgia would be absolutely inexcusable on the part of any one. Advance soil surveys of uncultivated or sparsely settled lands such as occur in the ranching sections of the Southwest and the flat, cut-over pine lands of the Southern States, followed by experiment work, would do away with much costly and haphazard trial.

The reconnaissance survey of western

North Dakota was undertaken last year to ascertain the soil resources and agricultural possibilities of this sparsely settled region for the purpose of directing intelligently the agricultural development of these little used lands. There were mapped a large area of level to gently rolling land admirably adapted to dry-farming, a considerable area too broken for farming but suitable for grazing purposes, and still other classes of land, some of which is too rough for any kind of agricultural usage.

In the arid regions of the West, where the rainfall is too little to leach out water-soluble mineral salts, accumulations of alkali in the surface soil frequently cause serious damage to vegetation. The ordinary cultivated crops will not thrive on a soil containing more than 1 per cent. of the milder forms of alkali, while in case of the deadly "black alkali" the limit of endurance is only 0.05 per cent. These salts, though they may not be originally present in the surface soil, often are brought up by a rise of the water table as a result of over-irrigation or by upward capillary movement of the soil moisture. On account of the presence of alkali it is necessary in many sections of the West to make, in addition to the ordinary soil map, a water table map and an alkali map, to protect the land buyer and to serve as a guide in planning irrigation works.

In the readjustment of our agricultural population,—a movement on the part of those seeking a milder climate or cheaper lands, or lands suited to special lines of farming,—there is no possible way of giving the emigrant as satisfactory forehand knowledge of the lands and agricultural possibilities of a section as can be done through the soil maps and unprejudiced reports of the Bureau of Soils. The most helpful assistance in the distribution and location of immigrants to the best advantage of immigrant and country can be offered through this available knowledge of the exact possibilities of the soils in all sections of the country.

When we think of the potential productivity of our large area of unused lands and lands reclaimable to agriculture, and further take into consideration the fact that we have hardly begun to get out of the soil already in use what there is in it, there seems to be no need to worry about the future.

From the standpoint of the Bureau of Soils, a most hopeful view of the permanency in the crop-producing power of our lands is taken; the inherent fertility of our soils has not diminished so frightfully as alarmists and theorists would represent; and there is comparatively little land topographically suited to agriculture that cannot be made to produce as good or better crops than in past seasons.



STRAWBERRIES ON SOIL ADAPTED TO SPECIAL INDUSTRIES, DELAWARE.

DOES BREAD-HUNGER THREATEN THE WORLD?

THE WORLD'S PRESENT PRODUCTION AND CONSUMPTION OF WHEAT AND THE FUTURE SOURCES OF SUPPLY.

BY W. C. TIFFANY.

(Managing editor of the *Northwestern Miller*.)

FOR nearly two years unprecedentedly high wheat prices have prevailed, and last spring the highest point in twenty-two years was reached, with the one exception of 1898, the year of the Leiter corner. How far these prices are due to manipulation no one can say, but making due allowance for the influence of the so-called corner of James A. Patten and his followers there is no question that they were caused to a very large extent by the shortage of wheat stocks throughout the world.

Many mills on the continent of Europe have this year been obliged to shut down for lack of wheat to grind, and the mills of Great Britain were for some time often close to the same position. Throughout Kansas, Missouri, the Middle States, and Ontario many mills were obliged to cease grinding or to run only half-time for the same reason. Flour in turn advanced, and many of the smaller bakers in the United Kingdom and in this country who were caught with short supplies of flour have been forced into bankruptcy. The price of bread has been advanced in London and Glasgow to seven pence for the quartern or four-pound loaf, and in many places in this country the loaf has been either reduced in weight or advanced in price.

In view of these facts the statement is now often made that the long predicted time has come when the world's consumptive demand for wheat has overtaken the production. Ten years ago an English scientist, Sir William Crookes, predicted that in view of the growth in population and the approaching occupation of all lands available for wheat-growing there would in a few years be an insufficient production of wheat to supply the world's demand for flour.

Statistics compiled by the United States Department of Agriculture show that the

world's total production of wheat during the last four years was as follows:

	Bushels.		Bushels.
1908.....	3,172,814,000	1906.....	3,423,704,000
1907.....	3,103,992,000	1905.....	3,322,000,000

James W. Rush, of London, England, one of the best informed and most accurate wheat experts in the United Kingdom, recently said:

Seeing that the world's normal consumption of wheat increases about 40 million bushels per annum and now amounts to about 3380 million bushels, probably to be reduced to 3300 million bushels, owing to the economy caused by high prices, a comparison of the crops for the last four years gives the following results:

Crops of 1905 and 1906.....	6,745,000,000
World's consumption.....	6,525,000,000
Surplus.....	220,000,000
Crops 1907 and 1908.....	6,275,000,000
World's normal consumption.....	6,675,000,000
Deficiency.....	400,000,000

The deficiency of the past two years, therefore, excels apparently by 180 million bushels the surplus left by the two previous crops. In other words, the world's reserve stocks at the harvest of 1905 have to be drawn on to this extent in order to supply current demands.

If the world's possible wheat production had reached its limit we should be facing a very serious situation, but that is far from being the case. In the last ten years the world's wheat crop has increased over 500 million bushels, and the world's consumption not to exceed 400 millions. We know that the consumption of wheat will continue to increase with the growth of population, but where is the increase in production to come from? That, after all, is the vital question.

THE NEW CANADIAN SUPPLY.

Any increase in our supply of wheat must come from new lands or increased yield per acre. Considering first the available new



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HARVESTING THE WHEAT CROP BY UP-TO-DATE METHODS.

(A thirty-three-horse team harvester cutting, thrashing, and sacking on a great wheat farm in Washington State.)

lands, we find a vast empire in Western Canada extending west of Winnipeg for 1000 and northward for 300 miles, a great part of which is available for wheat culture, and which produces some of the finest wheats in the world. The Red Fife wheat of this section produces the "No. 1 hard" grade known as "Manitoba" and the blue stem wheat, the "No. 1 hard" grade, known as "Northern," which equal the famous "No.

1 hard " and " No. 1 Northern " of Minnesota and the Dakotas.

In the Canadian Northwest these spring wheats, blue-stem and Fife, are grown almost exclusively, excepting in part of Alberta, where the climate is sufficiently mild to grow winter wheat. Here we find that the progeny of some thirty bushels of wheat brought by the Mennonites from the Crimea in the early '70s to Kansas, and which as the famous "Turkey red" wheat constitutes the principal crops of Kansas, Nebraska, and Oklahoma, has retained its wonderful yielding and milling qualities and is rapidly becoming an important factor in the wheat markets of the world. So pure is the strain of this old Crimean stock that when an infusion of new seed wheat is wanted to keep up the standard in Kansas it is sought in Alberta. Alberta's growth as a wheat-growing territory may be seen from the fact that five years ago it produced about 800,000 bushels of spring and 150,000 bushels of winter wheat, whereas last year it produced nearly 3,000,000 bushels of spring and nearly 2,500,000 bushels of winter wheat.

Important as Alberta is becoming as a wheat producer, and even more so the western part of Manitoba, which last year grew over fifty million bushels of wheat, Saskatchewan, with an area of a quarter of a million square miles of territory, is undoubtedly destined to supply a far greater increase in

wheat acreage. Eliminating her countless miles of swamp, lake, and muskeg, there still remains an empire of land suitable for wheat growing, of which only a small proportion is as yet under cultivation.

The Canadian Northwest is being settled with a rapidity such as the world has never before seen, and the intense activity there in railroad construction is bringing her crops within reach of the market. The wonderful development which is going on in this country is largely due to the class of settlers. They are to a great extent farmers from Iowa, Minnesota, and other Northwestern States, who, unlike the pioneers who settled our own West, have, as a rule, experience, money, and farm implements. Ten years ago Saskatchewan produced less than five million bushels of wheat; last year she produced over 43 millions. In ten years more she promises to completely change the conditions of the wheat markets of the world.

Still north of Saskatchewan lies another great empire with possibilities for further wheat acreage, the Peace River Valley in Athabasca, twelve hundred miles north of Montana. This territory, tempered by the Chinook winds and its proximity to the mountains, has grown a superior quality of wheat for the last sixteen years. At Fort Vermillion, 600 miles above the northern boundary of Alberta, the Hudson's Bay Company has operated a flour mill for years,



Photograph by Underwood & Underwood, N. Y.

THRASHING WHEAT IN WESTERN CANADA.



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THRASHING WHEAT IN THE SAN JOAQUIN VALLEY, CALIFORNIA.

(The machine is operated by an engine which uses the straw for fuel.)

which grinds the wheat of the Peace River Valley. The Peace River country, however, differs from the prairie lands of the southern provinces with their great stretches of miles of land of uniform fertility, for here the fertile land is broken by rock and stretches of inferior soil. In spite of this, however, the land available for wheat-growing is vast in the aggregate.

ARGENTINA, SIBERIA, AND MANCHURIA.

Argentina is another country of magnificent possibilities in wheat production. In 1900 she produced 72,000,000 bushels on about 8000 acres, in 1908 over 200,000,000 on 15,000,000 acres. Señor Tidblour, of Buenos Aires, an authority in such matters, states that there are more than 80,000,000 acres in the republic suitable for successful wheat farming which are still virgin soil.

When we consider the available wheat

acreage of Siberia the figures are still more startling. The economic expert of the division of foreign markets of the United States Department of Agriculture estimates the area available for wheat at three or four times the area planted, which is from 30 to 40 million acres. In western Siberia out of 80 million acres $7\frac{1}{2}$ million are in crop; in middle Siberia, 2,186,000 acres out of 73,600,000; in Transbaikalia, only 750,000 out of 64,000,000; in Amur, 0.6 per cent., and in the Ussuri-Littoral region, 0.3 per cent.

The remaining country which may largely increase the world's production of wheat from new lands is Manchuria. So far the cultivation of land there has been confined to crude methods, and yet northern Manchuria raises an annual crop of about 35,000,000 bushels of wheat. It is estimated that this region under proper cultivation could easily produce a crop in excess of that

of Minnesota and the Dakotas. A superior class of Chinamen is pouring into Manchuria from northern China at the rate of 200,000 to 250,000 a year, who are rapidly extending her wheat fields. The soil is fertile, producing from seventeen to twenty-five bushels to the acre, and tests made of the wheat show it to be rich in gluten and of superior milling qualities.

EFFECT OF IRRIGATION AND DRY FARMING.

Excepting through dry farming and irrigation the area of new land in the United States which can be devoted to wheat-growing is now quite limited, and the total area is more likely to decrease than increase as the country becomes more densely settled and diversified farming becomes more general. This is already very noticeable in certain parts of the country. In California, for instance, the wheat acreage has decreased over 50 per cent. since 1900. The amount of wheat acreage to be added by irrigation is as yet entirely conjectural. If five million acres of arable land are gained, as is estimated, by irrigation projects now under way or contemplated and one-fourth of this land were given to wheat-growing, which is probably too liberal an estimate, the increase in acreage would not make any very material addition to the world's production of wheat.

The amount of wheat which may be produced through dry farming in semi-arid regions, however, while also entirely conjectural, is by no means negligible. Argentina, Australia, eastern Russia, South Africa, Saskatchewan, Alberta, Montana, the Dakotas, Nebraska, Kansas, Colorado, Utah, and Nevada have many millions of acres which can be cultivated in this manner. The growing of wheat by dry farming is already carried on successfully and on a large scale in many parts of this country west of the Mississippi Valley and in the Canadian Northwest, on lands which a few years ago were considered worthless for such purposes. The so-called Campbell system of dry farming, which consists of packing the ground at a depth of seven or eight inches below the surface by means of implements constructed for that purpose, so as to prevent the loss of moisture by percolation and the creation of a mulch of loose soil above, to prevent evaporation, is no longer an experiment. In semi-arid regions having an annual rainfall of only fifteen inches sufficient moisture is preserved by this system from the melting snows and spring rains to carry the crop to maturity.

The selections of seed developed from the drought-resisting products of the tablelands of Turkestan and the steppes of Russia and Siberia also form an important feature in successful dry farming.

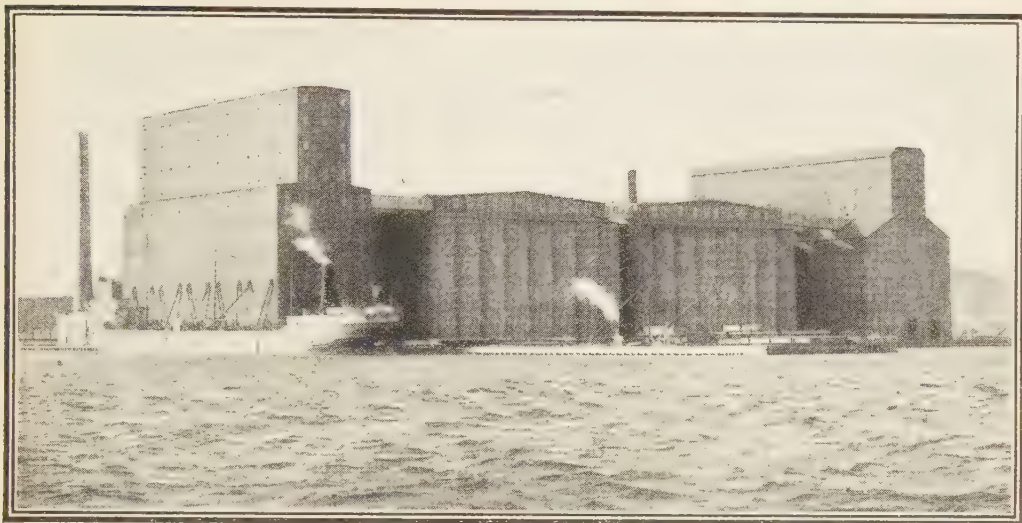
INCREASING THE YIELD—CROP ROTATION.

Of equal importance with the development of new lands for the cultivation of wheat is the possible increase in yield per acre on the lands which are now growing wheat through better farming methods and the selection and development of better-yielding seed. The settlers of the Central and Western States found a soil of apparently inexhaustible fertility. By reckless farming methods they had robbed the soil of this fertility, so that the present yield of wheat per acre even in the newer States has become deplorably low.

Prof. Harry Snyder, in charge of the department of agricultural chemistry and soils at the experiment station of the University of Minnesota, says that soils which have produced grain crops for ten or fifteen years without rotation of crops or other treatment contain from a third to a half less humus and nitrogen than adjoining virgin soil and retain less moisture and dry out more readily. On lands where twenty-five and thirty bushels of wheat per acre were once not unusual crops, the farmer to-day is harvesting twelve or thirteen bushels and often less.

Owing to the large area of the fields of the great wheat-producing States of the West, the restoration of their exhausted soils by the use of manure and commercial fertilizer is not practical on an extensive scale. The farmer has, however, a simple means at hand for restoring his soil to its original fertility in the systematic rotation of crops. Prof. Andrew Boss, agriculturalist of the experiment crops of the University of Minnesota, states that if wheat is grown for five years out of seven and other crops the other two years the land can be restored to and kept at a high producing point for an indefinite period.

The average wheat crop for the whole United States for ten years to 1908 was 13.78 bushels per acre; for five years to 1908, for Minnesota, 12.56; for North Dakota, 12.08; for South Dakota, 12.14. In Minnesota a steadily increasing and substantial improvement in yield per acre has been made through the adoption of crop rotation and the use of better seed. Dividing the time from 1882 to 1906 into five-year periods gives the fol-



THE WORLD'S GREATEST WHEAT ELEVATOR.

(It was built by the Canadian Northern Railway at Port Arthur, Ont., and holds 7,000,000 bushels of wheat.)

lowing average yields in bushels for a quarter of a century:

1882-6.	1887-91	1892-96.	1897-01	1902-6.
12.2	12.5	12.8	13.7	14.0

Thus in a period of twenty-five years the average yield per acre in Minnesota has been increased 1.8 bushels, or, based on the acreage seeded to wheat in 1908 by over nine and one-half million bushels, an increase of over 14 per cent.

When we compare the average wheat yield of the United States for the last ten years of 13.78 bushels per acre with the average yield in England during the same period of 31.13 bushels per acre, the average yield in France of over 20 bushels and in Germany of 28 to 30 bushels, we at once see the stupendous possibilities of increase in the world's production of wheat through proper methods of husbandry. An increase of only five bushels an acre in the yield of the United States alone would amount to about 238,000,000 bushels.

USE OF BETTER SEED.

Another source of prospective increase in wheat production is the use of better seed. The agricultural schools of the Western States have been working on this problem for years and by selection and cross-fertilizations have produced varieties of the best milling wheats which show startling figures as to increases and yield. While Minnesota's yield has averaged about 12 bushels per acre during the last decade the Minnesota Experi-

ment Station has developed a variety of blue-stem wheat, known as Minnesota No. 169, of the best milling grade, which for fourteen years has averaged 26.7 bushels per acre, grown under conditions no more favorable than the average crop of the State. Another variety developed by cross-breeding from Minnesota No. 169 has averaged 28.9 bushels per acre under normal conditions of cultivation for a period of five years. Prof. Andrew Boss estimates that the general use of seed wheat of the grade of Minnesota No. 169 would add at least three bushels to the acre in the Minnesota yield, and that if the use of such seed should be made on ground where a proper rotation of crops was practiced the increase would be many fold greater.

The development of wheats of higher yielding capacity is yet in its infancy and the possibilities in this direction can only be guessed from what has already been accomplished. It must not be forgotten, however, that the creation of new species is a matter of slow growth, involving years of patient work, of selection and rejection in strengthening and developing by means of cross-fertilization. Years must elapse in the cultivation of new varieties before definite results can be attained. The results of one year's yield are not decisive, but the average production of a series of years must be taken before data of any value can be obtained, and after a heavy yielding wheat has been produced it must be subjected to a milling test

to ascertain whether it will produce a flour of good bread-making qualities. Some of the most promising wheats in point of yield have had to be rejected because they were deficient in milling qualities.

The creation of a new species begins with the selection of a single kernel. While the beginning is thus insignificant, the result may be the development of a progeny which will control the wheat markets of the world. When this kernel is planted the following year it produces a few hundred kernels, which in turn are planted the following spring in single hills twelve inches apart. They receive the most scrupulous care and are given every possible attention to develop them into vigorous plants.

When these plants are in flower the process of the creation of a new species by cross-fertilization is ready to begin. The wheat flower being a perfect one,—having all the essentials of reproduction within itself,—the anther of the flower is removed to prevent self-fertilization. The anther is then removed from the flower of some selected head of wheat and its pollen sifted into the stigma

of the first flower. This process is repeated again and again with other flowers, and out of them all a few successful unions are made. When the process of fertilization is complete the head is wrapped to avoid contamination from any outside source.

When the head, which has been cross-fertilized, is ripe, the kernels are threshed out and only the best preserved. For a series of years thereafter the process of selecting the best kernel goes on. When several thousand kernels have been selected they are planted in nursery beds, one seed in a hill, four inches apart each way. When ripe perhaps 500 of the best yielding heads are selected and weighed and about one hundred of those yielding the heaviest preserved. These heads are shelled and the grain weighed, and the grade determined by inspection,—about fifty of the plants being then selected for mother plants.

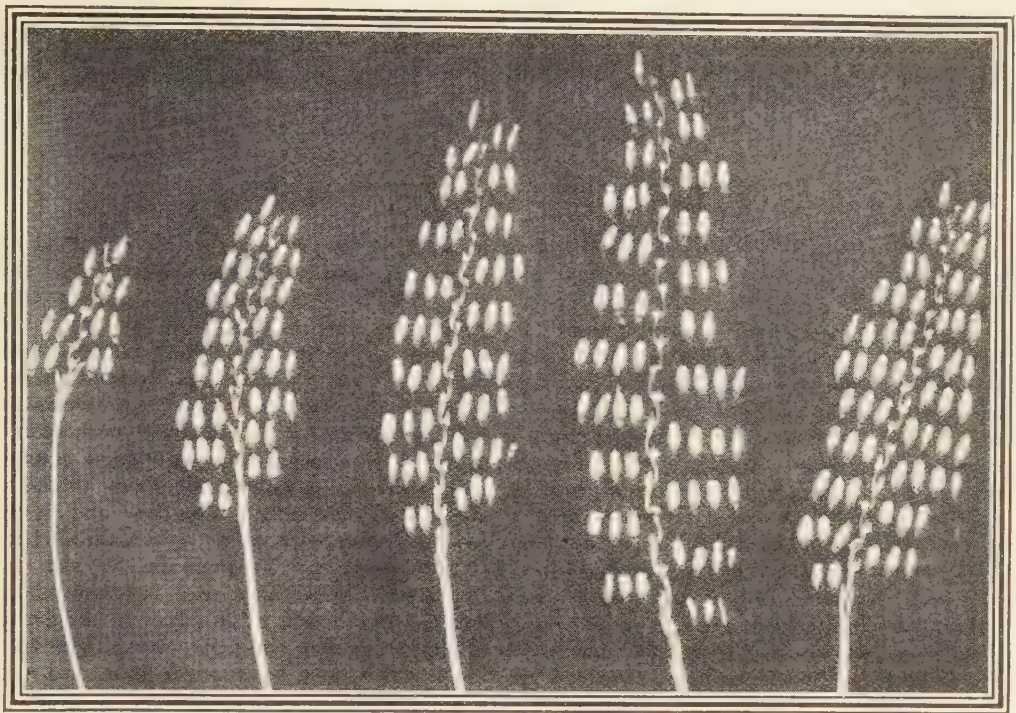
The second year 100 seeds from these mother plants are sowed in plots. When ripe the number of plants reaching maturity in each plot is determined, and the weight of the grain being divided by the number of



WHAT SCIENCE IS DOING IN THE BREEDING OF HYBRID WHEATS.

(A promising new hybrid wheat in center, with parent varieties on either side. The result of plant breeding.)

(The two middle wheats are hybrids resulting from a cross fertilization of the two outside varieties.)



A GRAPHIC ILLUSTRATION OF THE ACTUAL DIFFERENCES BETWEEN SMALL AND LARGE HEADS OF WHEAT.

(Showing the importance of uniformity in the quality of seed.)

plants, the average yield of the progeny of each of the mother plants is secured. One hundred seeds of these fifty varieties are planted and at the end of the third year all are discarded, excepting the five or ten of those stocks which average the best per plant for the three years. The new varieties are then grown in larger plots to obtain sufficient seed for field tests, and then for three years they are grown under field conditions. If their yield, milling, and baking qualities then show an improvement over the standard wheats they are distributed to the farmers.

It is thus seen that the creation of a new variety of wheat which can increase the present yield is a matter of a long series of years, and if it were not for the fact that so much has already been accomplished in this direction it would be easy to overestimate the increase for the immediate future in the production of wheat from this source. Moreover, even after a higher yielding variety of wheat has been established a considerable period must elapse before general use.

In view of an estimated yield this year of 235,000,000 bushels of wheat, or 60,000,000 bushels more than in 1908, in the Da-

kotas and Minnesota, of a substantial increase in the yields of Saskatchewan, Manitoba, Alberta, the Pacific Northwest, and South Russia, and in view of a much heavier yield in the Central and Southwestern States than seemed possible a few months ago, the world's stocks of wheat seem in a fair way to be in a measure replenished this year and the increasing consumption supplied, in spite of short crops in some of the important producing countries. Already the price of wheat has fallen greatly from the recent highwater mark; and while the days of cheap wheat may not return, there can be no question that the production this year will be adequate to supply the world's demand for flour. When we consider that the virgin land available for wheat growing far exceeds the area now under crop, the uncounted acres amenable to dry farming, the enormous increase in yield which can be added through rotation of crops and other improved methods of farming and the potentiality of better seed, we need have no fear, although consumption may at times press hard on production, that bread-hunger will for any considerable period threaten the world for generations to come.

THE WORK OF THE ILLUMINATING ENGINEER.

BY DONALD CAMERON SHAFER.

“WE have made a new profession, that of illuminating engineering, but we are still very far from the perfect artificial light,” remarked a well-known inventor. “Only a little while ago there were no men to specialize on artificial lighting. Such work was trusted to the architect, who did the best he could with his meager knowledge of the subject. To-day illuminating engineering is a recognized profession and to-morrow colleges will be granting degrees to new illuminating engineers. You smile, but I have helped to make professions before. I can well remember when we talked about electrical engineering as a profession, and people laughed in our faces. To-day there are thousands and thousands of electrical engineers. Long before we perfect artificial illumination the new profession will be recognized.”

“Is there such a thing as a perfect source of artificial light?” asked one of his auditors.

“Oh, yes, we already know of such a light. Almost everybody has seen this light, but all the wise heads in the world cannot read this simple secret which Nature has seen fit to bestow upon her most lowly forms of animal life. Behind you sits a darkened cabinet; inside of it is a little box. Shake that box a bit and you will see the only perfect source of light known to man.”

With eager faces the visitors crowded about the cabinet. Then with the look of disappointment one turned towards the inventor with the remark: “Why, there’s nothing but glow-worms and fire-flies in that box!”

“Nothing but glow-worms and fire-flies,” remarked the scientist, “and yet each one of those little creatures carries around a secret worth millions and millions of dollars. If I could discover that secret to-day, inside of a year I could make the fortunes made out of oil look like the widow’s mite. For, do you know, each one of those fire-flies and glow-worms carries a tiny light which they turn on and off at will? This little light gives very little or no heat, whereas the best incandescent electric lamps we can make waste

more than 90 per cent. of the electrical energy in useless heat for what little light they give. Take that sixteen-candlepower lamp above you, for instance; it consumes fifty watts of electricity to produce sixteen candlepower of light. Only two watts of this go to make the light and forty-eight watts are wasted in heat. If I could reverse those conditions I could get twenty-four times as much light, or 384 candlepower, from the same amount of current. Fire-flies and glow-worms know the secret of light without heat,—man does not. But some day we will read this puzzle, as we have read so many before, and the nights will be as day. In the depths of the ocean even the penetrating light from the sun is barred, yet there is light, and electric light, too. Almost every one of those deep-sea creatures carries a tiny light similar to that of the fire-fly,—a light that can be turned on or off at will. We assume that the ‘electricity’ for this light is produced by nervous energy; beyond this we really know nothing.

“But with all this study and research, while the secret remains unsolved, we have improved all the sources of artificial illumination and incidentally, as I said before, produced the illuminating engineer. Born of necessity and economy, it is a good thing the illuminating engineer is here, for we have been shamefully neglecting our health, eyesight, and pocketbooks ever since man first snatched a burning brand from the fire and lighted the way into his cave.”

DEVELOPMENT OF THE NEW PROFESSION.

The elder Agassiz, the famous Swiss scientist, once remarked that every great invention, every new thing, had to pass through three stages of development: First, when everybody said it was impossible; second, when it was thought contrary to religion; and third, when everybody said it was known before. Illuminating engineering has already passed the first stage and is well on its way towards the end of the second, where very little murmuring is heard against the new branch of applied science, so opposed to the



SEARCHLIGHT OF THE HUDSON RIVER STEAMER, "C. W. MORSE," ILLUMINATING THE CAPITOL BUILDING AT ALBANY, A MILE DISTANT.

ancient dogmas and creeds of the commercial world.

All engineering involves questions of economy, and the best engineering practice is that which accomplishes the best results at the least cost. When the mining industry demanded men to make a systematic study of geology and minerals, so that they might be of value to their employers in keeping them from wasting money on worthless claims, the mining engineer sprang into being. When the cry for electrical inventors rang over the world men began to study and research into this branch of science and the electrical engineer came into his own. Giant bridges and lofty buildings, continental railroads and waterpower developments demanded civil engineers, and even the great industries have produced their mechanical engineers.

While this new profession is distinctly American it is true that the pioneer work was started in England, when Mr. A. P. Trotter developed several new methods of calculating illumination and advocated a more rational use of light. But from this humble start it was Americans who made this new profession. Illuminating engineering belongs to this country, and the veterans in the profession can be counted on the two hands. Ten years ago the infant had not even been christened, and the rapidity with which this science has been accepted and placed among established professions has no parallel in history. After centuries of ignorance, prejudice, and malpractice, in the short space of

half a dozen years illuminating engineering has risen to a position of recognized standing and independence.

WHAT THE ILLUMINATING ENGINEER HAS LEARNED.

Light travels at the incomprehensible speed of 186,000 miles a second. This is equally as fast as electricity travels and is so nearly instantaneous that the most delicate machines are necessary to measure it. But, swift as it is, light and illumination, though intangible, can be definitely measured. The laws of light, too, are well understood and are comparatively simple.

The source of light (except that of the glow-worm and the fire-fly) is a substance which is raised to such a temperature that it sets up waves in the surrounding ether, which, when falling upon the eye, produce the sensation we know as light. It is acknowledged that the source of light in the sun is a great mass of white-hot matter. The atmosphere enables us to see sunlight, and beyond the earth's atmosphere sunlight is said to be invisible to human eyes. The source of light in an arc lamp is the heated particles of carbon floating between the white-hot tips of the electrodes, which are raised to a high temperature by electricity. In an incandescent lamp the light source is a thin filament maintained at a high temperature inside the glass globe by the passage of a current of electricity. In gas and oil lamps the light is thrown off by the myriad particles of carbon heated to incandescence in



BOSTON, THE BEST LIGHTED CITY.
(Latest types of arc lamps on Commonwealth Avenue.)

the flame. In the new gas lamps it is the white-hot mantle which produces the light.

The human eye can withstand ordinarily, without fatigue, a brilliancy of about five candlepower per square inch of surface. The intensity of light sources ranges all the way from the two or three candlepower per square inch in the ordinary candle flame to 600,000 candlepower of the sun when at zenith. This means that a square inch of candle flame gives off from three to four candlepower, while every square inch of the sun's surface gives 600,000 candlepower. The intensity of the arc light ranks next to that of actual sunlight, being about 10,000 candlepower per square inch. The new metal filament lamps give about 1000 candlepower, which means that if we had a ball of tungsten as big as the sun, heated by electricity, it would throw off a thousand candlepower of light for every square inch of its surface.

By means of a refraction prism a beam of light may be separated into the various colors of which it is composed. White light, for example, is composed of all the colors of the rainbow, harmoniously blended together. The sun, high in the sky, gives a pure white light; the arc and metal filament electric lamps give a light that is very nearly pure white; the light from the mantle burner is greenish white; sky light is bluish white; the kerosene lamp gives an orange light; the open gas flame is yellow; the candle produces an orange yellow light. This difference in the quality of light is due to the difference in temperature at which the heated elements operate.

The fusing point of tungsten (3050 degrees Centigrade) is higher than any other known metal, which enables it to operate at the very high efficiency obtained in the tungsten lamp. One of the laws of incandescent light is that the higher the temperature the better the light and the greater the economy of current consumed. Up to a few years ago tungsten was known only in laboratories, and then only in a very impure state and on account of its rarity the price was very high. But latter-day prospecting has resulted in the finding of vast bodies of the ore, and the price has correspondingly dropped to about \$7 a pound. It would be even lower than this but for the difficulties in refining the metal. Only with the electric furnace is it possible to produce tungsten in its pure form. Pure tungsten is hard enough to scratch glass; it is almost impossible to melt it; it is malleable to some extent, but not ductile. Because it cannot be drawn into wire the wire-like filaments employed in the electric lamps are made by a commercialized laboratory process.

These new tungsten incandescent lamps, with the same consumption of energy and expense to the consumer for current, give nearly three times the illumination of the old carbon lamps. The lighting companies were quick to see the advantages of this wonderful improvement, and are now encouraging their customers to use the new lamps, making it plain to them that they can obtain three times as much light of a better quality for the same money.

To those whose homes and business places were already abundantly lighted it was ap-

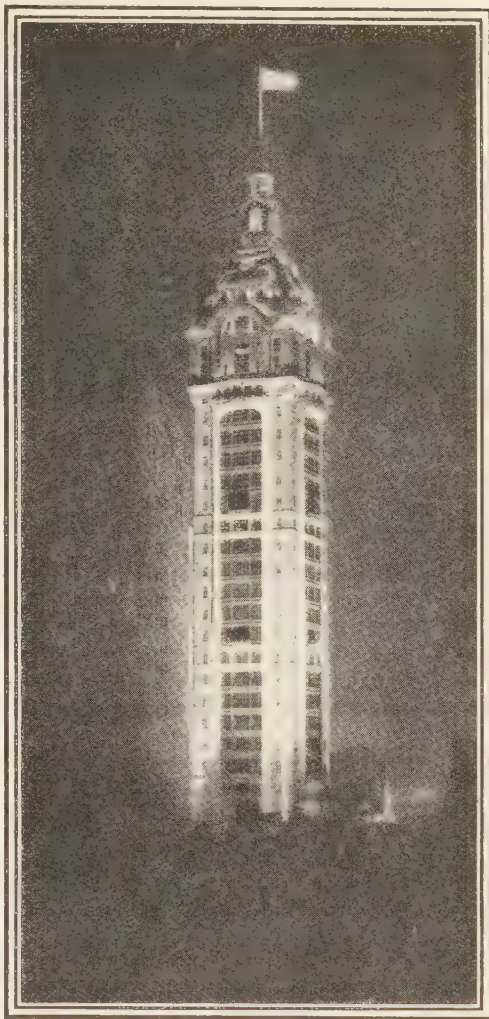
parent that the new lamps would easily give the same light as the common incandescent lamps for one-third the cost. A home that was lighted by electricity for \$2.35 a month could be lighted with the new lamps for seventy-eight cents. Not only that, but the light from the new tungsten lamps proved to be nearly pure white, akin to actual sunshine, soft, pleasing, and beneficial to the eyes, and not of a yellow cast like the common incandescent lamps.

Within the past few months tungsten has revolutionized the electric lighting world, and has proved the greatest boon to the consumers of electric light since the discovery of the incandescent lamp.

To fully understand light one has to assume the presence of a wave motion set up and maintained by the source itself. The color of the light depends on the length of the wave. The light waves producing the colors in the blue end of the spectrum are very short compared with those that produce the colors near the red end. The light source which we know as red gives off only waves of the length which produce that particular color. A body appears red because its surface is capable of reflecting only waves of lengths corresponding to red. If an attempt is made to illuminate a blue body by a red source it will fail, because the blue body is capable of reflecting only the short waves producing the blue, and since the red source contains none of these there will be no reflection and the body will appear black. In the dark there is no color. We see objects by the light reflected from them. In department stores white goods are often displayed on the same floor as dark woollen goods. In this case, if the intensity of the light is the same throughout the store, the section containing the dark goods will appear poorly lighted as compared to the section containing the white, because black absorbs light, while white reflects it. This absorption of light accounts for the fact that black clothes are warmer in summer than white clothes.

This property of reflecting, or rather absorbing light, is shown in the following table, which gives the percentage of the total incident light that is reflected:

Mirror	95.
White blotting paper	82.
Chrome yellow	62.
Orange	50.
Yellow	40.
Pink	36.
Emerald green	18.
Dark brown	13.
Vermilion	12.
Black paper	0.5
Deep chocolate	0.46
Black velvet	0.4

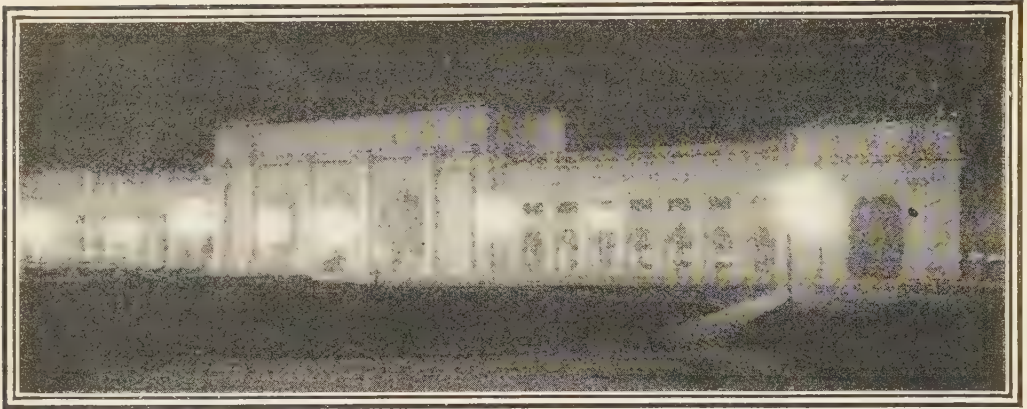


NIGHT ILLUMINATION OF THE SINGER TOWER,
NEW YORK CITY.

If we attempt to transmit white light through a red glass only the red rays will be transmitted, the others being absorbed by the glass. Instead of getting all the energy of the light we get only that part included in the red ray.

It was formerly the custom to blame the oil, or the gas, or the electricity if there were dark shadows in the room or if the light failed to dispel the evening darkness. Now the illuminating engineer has proved that these same rooms, be it at the home, or the office, or the store, can be made almost as light as day with even less candlepower than before, all with a little study and planning.

A wall-paper which will "absorb" light is the greatest enemy to artificial light in the



NIGHT ILLUMINATION OF THE NEW UNION STATION AT WASHINGTON, D. C.

home. An illuminant is powerless to light a room if the color of the walls absorb most of the rays. The illuminating engineers claim that a white wall will reflect 50 per cent. of light, whereas a red wall-paper will reflect only 15 per cent. A light buff or yellow will reflect 45 per cent.; a dark brown, 12½ per cent.; a light apple-green wall-paper will reflect 40 per cent.; a dark green will give only

15 per cent. Dark wood trimmings absorb light; white wood reflects it. Velvets, chintzes, burlaps, will all absorb light; so will wall-paper, whatever its color, but a tinted surface wall reflects the light. Wall-paper in patterns is not only one of the greatest of all known absorbers of light, but it also has a bad effect on nerves and eyes. Old-fashioned wall-paper in sick-rooms has



INTERIOR OF THE NEW WASHINGTON STATION, SHOWING NIGHT ILLUMINATION.

driven more people delirious than all the diseases combined. The plainer the wall-paper the better for nerves and body, and the smoother the surface the more light it will reflect. In selecting wall-paper the way the room faces must also be taken into consideration. Those rooms facing north and east require lighter colored papers than do rooms facing south and west.

The first duty of the illuminating engineer was to bring about an important change in the practice of placing the lamps. This was very hard to do because the antiquated chandelier had become a habit with architects and builders. It was only after the engineer had repeatedly proved that better illumination could be secured by using several lights distributed about the apartment that this change was brought about. Now, when an engineer is asked to figure on the artificial lighting of a building the first thing he does is to get the dimensions of the rooms and the color of the walls, ceilings, floors, and furniture. Then he ascertains the exact amount of light required for each apartment, and figures out the "wattage" necessary to secure the desired illumination. Once he knows the "wattage" it is easy to figure out the number of lamps required, the candlepower of each lamp, and the proper places to arrange them on the ceiling to get the right effect.

The matter of proper shades and reflectors has also been carefully investigated by the engineer with the result that many of the old types have been thrown on the junk heap and new and better ones devised on scientific lines. These new reflectors concentrate, diffuse or focus the light to meet the demands of the lighting specifications, utilizing the new illuminants to the best advantage.

ACHIEVEMENTS OF ILLUMINATING ENGINEERING.

One of the greatest feats of illuminating engineering was the night illumination of Niagara Falls during the summer of 1907. To successfully illuminate this mighty torrent a battery of nearly fifty large searchlights, several of them the largest of their kind and capable of throwing a beam of white light 125 miles, was located below the falls. Some of these searchlights were placed at the water's edge opposite Goat Island and others on the cliff, both on the Canadian side. This arrangement permitted the illumination of both the Canadian and American falls and threw a plunging light on the falling water and flying mist. The light from the battery

of searchlights, when thrown into the sky, could be seen as far away as Toronto and Rochester.

The tower of the Singer Building in New York is another triumph of the new illuminating engineer. This tower is also illuminated nightly by powerful searchlights.

Among the greatest achievements of the new profession was the illuminating of the great expositions. While the Pan-American Exposition at Buffalo was undoubtedly the best example of scenic lighting, the Seattle exposition is a close second.

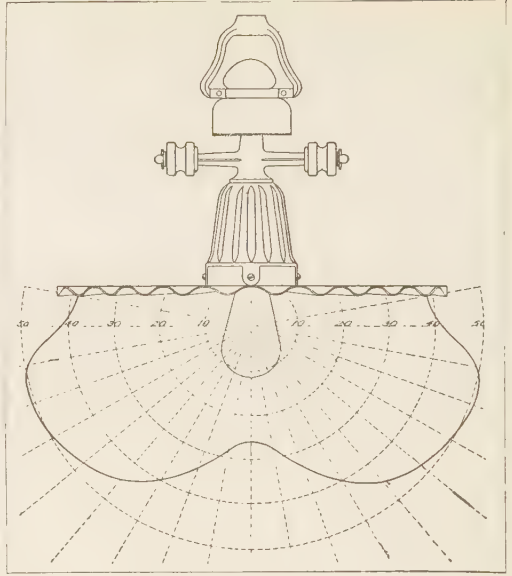
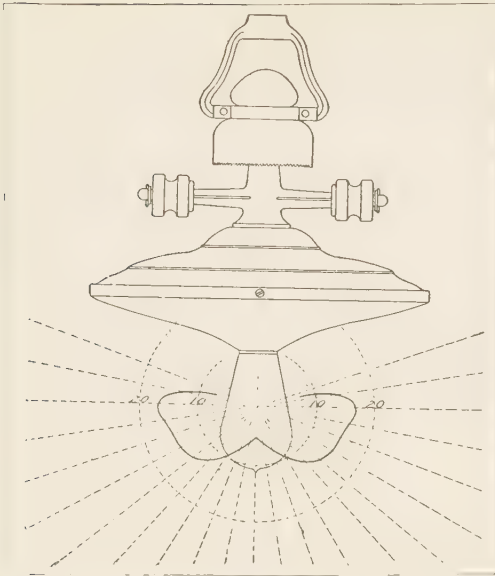
In a certain rifle factory every method was tried for artificially lighting the rifle range, but without success. As soon as the sun began to sink into the West the testing of the rifles had to stop. An illuminating engineer was sent for and after carefully measuring the amount of daylight on the target at all hours of the day he devised a special arrangement of the lighting source which worked so well that the marksmen pulled down the curtains by day, preferring to shoot under the artificial light rather than the light from the sun, which varied every time a cloud passed over its surface.

The artificial illumination of the new union station at Washington, D. C., is perhaps the finest example of the illuminating engineer's work in the country. This station, which is the largest and best in the world, is lighted indirectly by electricity after the most scientific and approved methods. It was only a few weeks ago that a man and his wife from Milwaukee had occasion to spend several hours in this station waiting for a train. The husband was an official in an illuminating company and had made more or less a study of lighting. After a time the wife went out on the street and did not return for some little time. "I'm glad to get back safely, John," said she, "for it's so awfully dark outside."

"Dark? Why, no, it isn't dark yet. It's as light as can be," answered the husband.

Nor would the husband believe it was dark until he went outdoors himself and looked. Much to his surprise it was as dark as pitch out of doors, yet the illumination of the station's interior, to all appearance, had not changed at all in the transition from day to night.

The illumination of this station is ideal from the engineering point of view. Artificial illumination, to be correct, should diffuse the light in exactly the same proportion as actual daylight, and the light source



OLD AND NEW ELECTRIC LIGHTING SYSTEMS COMPARED.

(Characteristic distribution of light from 50-watt carbon filament street series lamp, equipped with old type reflector.)

(Characteristic distribution of light from 50-watt series Tungsten lamp, equipped with radial wave reflector.)

should approach the exact color of sunlight as nearly as possible.

"The light is good," declared the owner of a large department store to the illuminating engineer, "but there is a strong odor every time we light up."

"The trouble is that the architect did not figure on enough ventilation for the store when it is lighted by artificial means," answered the engineer. "Your lights produce an enormous amount of heat and give off obnoxious gases, which would be removed by proper ventilation."

The ventilators were enlarged and the trouble ceased.

A manufacturing firm which employs the very best of skilled workmen found that the men were complaining of eye troubles. As nearly 99 per cent. of the work in the shops is accomplished through the aid of vision the illuminating engineer was hurriedly summoned to correct the trouble. He found that the lighting system used during the late afternoon and evening was too rich in the red and violet rays of the spectrum, which are irritating to the eye. When this was corrected with suitable shades the trouble ceased at once.

In another factory a flickering light prevented good workmanship, and in a large public hall the points of greatest brilliancy

came directly into the field of vision, not only hurting the eyes but tiring every one who sat there for any length of time.

Another illuminating engineer corrected the daylight illumination of a costly home, when he had been summoned to suggest the changing of windows for this very purpose, by ordering the light-colored wall-paper in the bright, sunny rooms to be replaced with a dark green; and replacing the paper of the darker rooms with a light buff and tinting the ceilings.

The first work of the illuminating engineer was to correct the light sources which are injurious to the human eye. Naturally the illumination of the large public buildings claimed his attention first and he set about to correct these defects. The lighting methods of libraries and school buildings were found to be radically wrong and dangerous to old and young. The eyes of children are as delicate and sensitive to overwork and strain as their bodies, and to compel children to do eye work by insufficiently or badly directed light is an injustice and cruelty equal to compelling them to bear burdens and labors beyond their bodily strength.

The eye carries more information to the brain than all other sources combined, and with the wonderful speed of light this intelligence is almost instantaneous. Notwith-

standing that the sense of sight is the most valuable possession of the human body, it is, unfortunately, given the least attention. In most cases the eyes are never examined until continuous headaches warn the victims of ocular trouble or actual blindness takes place.

Ideal illumination reflects just enough light from the object to the eye so that it can be seen easily and clearly. Too much light must be avoided, for the iris, or shutter, of the eye can contract and shade the eye only a certain amount, and it is soon tired by such tense contraction. The iris expands when it tires and weakens, allowing the strong light to enter the eye. A strong light striking full on the retina of the eye is very detrimental. Flickering lights are hard on the eyes, as the iris has to be continually readjusting itself; streaked light is also bad, as the retina is unable to adjust itself to streaks of different intensity.

A few years ago the London School Board examined nearly 400,000 school children, of whom 25 per cent. were found to have defective eyesight, while 230 pupils could not read the test type at all. The eye of a child is shallower and the lens more convex than that of an adult, so that the illuminating engineer is confronted by an entirely different problem when planning the illumination of a school room, library or nursery. School work, reading and writing are necessarily tiresome to the eyes, and the very best of illumination must be secured if the eyes of the children are to be preserved.

Our general health depends a great deal on the perfection of the lighting systems in our homes, offices, and factories. Where lights are suspended low the flame or filament is hidden by opal or ground glass so it cannot hurt the eyes. Gas and oil lamps vitiate the air, burn up the vital oxygen, and give off poisonous gases unless the building wherein they are used is specially well ventilated. Such poorly planned lighting systems are a daily menace to bodily health. All lamps that burn with an open flame fill the air with tiny particles of black soot, which coat the nostrils and bronchial tubes; these particles also settle on the furniture, curtains, walls, and ceilings, making it necessary to periodically refinish and refurnish the rooms.

By far the largest percentage of headaches can be traced directly to the eyes and from the eyes to a poor system of lighting, whether by ill devised windows or poorly arranged lamps. A strong light shining into the eyes,

the glare of reflected light from a book, desk, or paper; streaked light, not enough light, too much light, and a number of other defects in the lighting arrangement cause headaches.

There are two ways to light large rooms, either by direct or indirect lighting. With indirect lighting all the light is thrown to the ceiling and walls and thence reflected to the lower portions of the room, giving a soft, mellow light, without any sharp points to blind the eyes. With direct lighting opaque shades placed directly above the lamps reflect all the light downward. Direct lighting is the most common and the cheapest way, but it does not distribute the light evenly, casts heavy shadows, and leaves the bright points of light free to shine directly into the eyes. By using diffusing shades and ground glass globes this trouble can be avoided.

The lighting of show windows has called for all the originality and imagination of the illuminating engineer. Because of the small space, high ceilings, plate glass, and mirrors this was a very difficult proposition, but the results have been most satisfactory. A well-lighted show window is a valuable adjunct to the advertising of all kinds of merchandise, and in this branch of the work the engineer has saved the shopkeepers thousands of dollars.

ABOUT THE EYES.

The human eye has passed through thousands of years of evolution until it has become best adapted to sunlight, or skylight coming obliquely from above, and resents strong illumination from any other direction. It is apparent that snow blindness, distress from white sand or water is not caused by the intensity of the light so much as by the fact that it is reflected up instead of down and is not stopped by the rather transparent lower eyelid. If the lower part of the eye is guarded with goggles or by blacking the lower lid no difficulty is found. The eye is provided with a wonderful automatic "iris diaphragm" for its adjustment to various degrees of illumination. This diaphragm, while very prompt in its action, is by no means instantaneous, and if one comes suddenly out of the dark into brilliant light the effect will be blinding, with countless after-images floating before the vision. These after-images are caused by retinal fatigue. The iris adjusts itself to cope with the brightest light it has to encounter. This accounts for one's inability to see beyond a brilliant light, such

as a low hanging arc light or an automobile lamp during the night.

But light without shadows is objectionable because the eye has grown used to shadows and requires them. Shadows enable us to see the shapes of objects. On certain days when the earth is veiled by a thin fog which hides the sun while diffusing light with great brilliancy there is a painful glare which the eyes cannot endure without serious strain. This is due to the fact that the light seems to come from everywhere, eliminating all shadows.

"Is it injurious to read in bed?" was asked an illuminating engineer the other day.

"Lie in bed and read all you want to," said he with a laugh, "providing you have a good and sufficient light and that it comes from the right direction. The bad effects resulting from the habit of reading while lying down are generally the result of facing the source of light. Let the light come obliquely from above and behind the book and no harm will result unless you read all night and overtax your eyes."

Gazing at a brilliant light will tire one in a few seconds. The drowsiness which steals over us in church or public hall is not always due to the speaker or to our own toil-worn condition. Quite as likely it is due to an unconscious straining of the eyes caused by an exposed light in our field of vision.

Visual memory is a phrase much used by illuminating engineers. It is visual memory which makes us believe that the lightning is a single flash of brilliant light, when the camera shows us that it is a series of flashes. If we swing a lighted stick in a circle fast enough it will look like a complete circle of fire. This is because the light coming from the moving flame is focused on the retina, the reflection persisting for a fraction of a second; thus sight and memory continue until the flame has made a complete circle. In the retina there are a million or so of nerve fibers, all of these taken together making up the optic nerve, but all these fibers have other ends somewhere in the brain, and the impressions brought to the brain by these fibers endure for a very short time, just as a piece of metal keeps hot after it has been taken out of the fire.

THE TOOLS OF THE TRADE.

The terms used by the illuminating engineer are easily understood. Candlepower, as its name implies, means the intensity of light given by a single sperm candle. The

term "foot-candle" is the intensity of illumination a single candle gives on a screen one foot from the flame.

The luximeter, the latest instrument to be devised by the illuminating engineer, is a portable device to measure the illumination on any surface.

The luminometer, or type reading photometer, is used for measuring the lighting distance or illuminating value of street lamps.

The spectroscope and spectrophotometer enable us to analyze a beam of light and measure the colors. With the spectrometer the scientist can tell from a ray of light whether a star is moving towards the earth or away from it, and how fast.

There are also a large variety of photometers for measuring the candlepower of different sources of light.

PROGRESS IN PUBLIC LIGHTING.

Not two hundred years ago Broadway, New York, after nightfall was almost pitch dark and infested with rogues and thieves. It was not safe to travel it by night without armed guards and boys carrying torches. To-day this great thoroughfare is famous as the "Great White Way," because of the brilliancy of its night illumination.

Less than a hundred years ago street lighting was opposed by the very best men of that day on theological grounds as being a presumptuous thwarting of the intentions of Providence, which had appointed darkness for the hours of night. It was opposed on medical grounds, as gas and oil were declared unwholesome, and they argued that it was a bad thing to encourage people to stay outdoors nights and catch colds, pneumonia, and fevers. On moral, philosophic grounds it was held that the people's moral standard would be lowered by street lighting, as the drunkard would feel there was no hurry to get home, and late sweethearting would be encouraged, whereas black night sent people home early, thus preserving them from a multitude of sins. They also argued that lights would make thieves alert and that national illuminations would lose their effect if there were street lighting every night.

Seventy-five years ago streets were being lighted with oil and gas. Twenty-five years ago the electric lights were introduced and the systematic lighting of streets began; now there is scarcely a hamlet so small it cannot boast of lighted streets. And the men who are studying the subject say that the dawn of artificial light is just breaking.

THE PAYNE-ALDRICH TARIFF.

[The following analysis of the new tariff law was prepared by an expert authority. All the statements have been verified by reference to official documents. It is proper to state, however, that in the case of some of the more complicated schedules (cotton, for example), in which new classifications have been introduced, it is impossible to say just what the revised imposts will be on particular classes of goods. There are, indeed, wide differences of opinion among Government officials as to the ultimate effect of some provisions in these schedules. For instance, it is contended by some of the appraisers that the new cotton schedule will affect only high-grade cottons, while the Chief of the Division of Customs of the Treasury Department is authority for the interpretation adopted in this article.—THE EDITOR.]

THE tariff bill which became a law by President Taft's signature on August 5 makes hundreds of changes in the customs schedules and affects thousands of commodities. No general conclusion regarding the merits or demerits of the new law can be reached without a careful analysis of the measure in its various details.

According to the official estimates of the Senate Committee on Finance, the average rate of duty under the new tariff is 1.1 per cent. higher than the average Dingley rate, the figures being based on the values of imports during the fiscal year 1907.

The average increase of 1.1 per cent. is the net resultant of numerous changes, both upward and downward, occurring in the different schedules of the tariff. Not all of these schedules have an equal interest to the general public. From the point of view of the "ultimate consumer," a phrase which gained prominent currency during the great tariff debates, a reduction of duty on the things he eats and wears is of far greater importance to him personally than an equal reduction on chemicals or machinery. The reductions of the latter class may or may not benefit him ultimately. The outcome would depend on a number of conditions, such as the duties on the finished products, presence or absence of domestic competition, etc. It is well, therefore, to consider first of all the textile schedules and then analyze the rest in the order given in the law.

THE COTTON SCHEDULE.

Of the four textile schedules, cotton, wool, flax, and silk, the first is the one of paramount importance, affecting an article used by every man, woman, and child from the richest to the poorest. Though made of a raw material of which we produce the bulk of the world's supply and the manufacture of which in this country,—in the staple lines, at least,—is as cheap as, if not cheaper than,

in any of the important competing countries, the schedule carried duties under the Dingley law from 10 per cent. to 48 per cent. on thread and yarn, as high as 77 per cent. on cotton cloth (the average rate on all cotton cloth being estimated by the Bureau of Statistics at 38 per cent.), and similar rates on other cotton goods.

During the interval of twelve years in which the Dingley tariff was in force our cotton industry made gigantic progress. Leading mills have been declaring dividends as high as 66 per cent. and more, setting the pace for domestic prices whose upward trend knew but one limit,—the height of the tariff wall beyond which foreign competition was made impossible.

Until the very close of the tariff debate in Congress, Senators Aldrich and Smoot, on whose shoulders rested the weight of responsibility for the intricate changes in the cotton schedule, stoutly maintained that there had been no substantial change in the cotton schedule. The Senate Finance Committee's own compilation shows an increase from the average Dingley rate of 44.84 per cent. to 50.62 per cent. under the new tariff, or an increase of nearly 13 per cent. However, if that figure measured the sum and substance of the changes in the cotton schedule it would not have precipitated the fierce onslaught of the insurgent Republicans, led in the Senate by La Follette and Dolliver. The fight centered about the changes in classification, which will result in raising duties as much as 100 per cent., and in some cases more, above the rates of the Dingley tariff. The changes are too technical to be explained here at length. Suffice it to say that they are of a kind not to be easily discovered, requiring painstaking study of the new law and minute comparison with the old.

One of the provisions, which has caused much discussion, may be briefly explained for

the purpose of illustration. Under the Dingley tariff cotton cloth was subject to the same duty whether mercerized or not. The new tariff provides (in par. 323) for an additional duty of 1 cent a square yard on cotton cloth "mercerized or subjected to any similar process." In paragraph 320 the definition of mercerized cloth is given as one "which has any . . . mercerized . . . threads in or upon any part of the fabric." This will make any cloth having two or more glossy threads in the fabric subject to the additional rate as "cloth mercerized or subjected to any similar process." When the character of this unique definition of cotton cloth was subjected to criticism in the House it was withdrawn by Mr. Payne on his own motion. It reappeared, however, in the Senate bill. In the Senate it again failed to find open support, for no sooner had it been exposed to criticism than it was withdrawn by Mr. Aldrich. Nevertheless it reappeared in the bill as reported from the conference and now forms part of the law of the land.

This provision, which will result in increases of duty as high as 100 per cent., does not, of course, exhaust the changes made. By changing the classification of cotton cloth and substituting specific for ad valorem duties various grades of cotton cloth are made to pay higher rates, while nominally the duties may appear to be the same. The advances will affect practically every variety of cotton cloth, the increases ranging from as little as 5 per cent. for the finest cloth to 100 per cent. and more for the poorer grades, as is shown in detail in a table prepared by the Department of Commerce and Labor and published in Senate Document No. 155, and by the tables prepared under the direction of C. P. Montgomery, chief of the Division of Customs, Treasury Department, and published in the *Congressional Record* of August 6, page 5241.

Another item in the cotton schedule which received much popular attention is hosiery. The conferees modified the advances passed by the House by leaving the following increases of duty on the lower priced hosiery in the act as it finally passed: Hosiery valued wholesale at not more than \$1.00 per dozen pairs, 88 per cent. ad valorem, as against 67 per cent. under the Dingley tariff; valued at \$1.00 to \$1.50, 77 per cent., as against the Dingley rate of 58 per cent.; valued at \$1.50 to \$2.00, 62 per cent., as against 51 per cent. under the Dingley law. The duty

on the highest priced hosiery, valued at more than \$5.00 per dozen, remains unchanged at 55 per cent. ad valorem.

WOOL AND MANUFACTURES OF WOOL.

Next in importance to cotton, if not fully as important, is wool. It is the schedule that formed the subject of even more severe criticism in Congress than cotton. The criticism is based on the discrimination against the carded woolen industry, which produces the poor man's cloth, in favor of the worsted manufacturers, due to the imposition of a uniform duty of 11 cents a pound on raw unwashed wool, which taxes the cheaper wools as high as 500 per cent. and more, while frequently amounting to less than 25 per cent. on the finer grades used for the more expensive cloths.

Based on this system of duties on raw wool is a graded scale of duties on woolen cloth, which allows the manufacturer of cloth composed largely of cotton and shoddy the same "compensatory" duty on a theoretical quantity of wool which is supposed to go into the cloth, as it does on cloth made of "all wool." The result is the imposition of duties frequently ranging from 100 per cent. to 200 per cent. on woolen cloth, blankets, etc., which rise in an inverse ratio to the value of the goods. This discrimination in favor of the worsted industry of New England at the expense of the carded woolen mills of the rest of the country is charged by the latter to have been instrumental in building up a woolen trust dominating prices at home and destroying the smaller mills, whose owners have not the necessary capital to go into the worsted industry and are thus driven out of business. The schedule has been left practically unchanged, save for a reduction of duty of about 5 per cent. on some grades of women's and children's dress goods, which, on the basis of the 1907 prices, is reduced from 115½ per cent. to 109¾ per cent. ad valorem and from 92.6 per cent. to 88 per cent. ad valorem respectively.

SILK.

The silk schedule has been even more radically changed than the cotton schedule, but no accurate estimate of the average change is possible. The increases on the individual items run all the way up to 70 per cent. The official estimates of the Finance Committee show an average increase of less than 1 per cent. for the entire schedule, viz., from 52.33 per cent. under the Dingley tar-

iff to 52.67 under the new, but as they take no account of the changes in duties caused by the changes in classification, they are of little value. However, the average increase on silks will be far below that on cottons.

FLAX, HEMP, JUTE, AND MANUFACTURES THEREOF.

According to the official estimate, the average rate for this schedule has been but slightly increased,—from 40.5 per cent. under the Dingley tariff to 40.9 per cent. under the new. The schedule contains a number of reductions on yarns, nets, matings, etc.; while among the increases are those on certain varieties of linoleum and oilcloth amounting to from 50 to 100 per cent., and on laces, embroideries, and similar trimmings of certain makes, raised from 60 per cent. under the Dingley law to 70 per cent. under the new tariff. As neither of these increases appears in the official estimates, and the increase on linoleum and oilcloth is made to appear as a reduction instead, the general average given above is underestimated.

CHEMICALS AND EARTHENWARE.

In the chemical schedule (Schedule A) duties have been reduced on 12 per cent. of the imports in that class, the reduction amounting to 79 per cent. below the Dingley rate; and raised on 12 per cent., the increase amounting to 44 per cent. over the Dingley rates, while 76 per cent. of the total imports under that schedule will continue to come in under the old rates. The sum total of the changes represents a reduction of $4\frac{1}{2}$ per cent. Most of the articles under that schedule are not used directly by the consumer.

Schedule B includes earthenware, glass, and glassware, etc. Here the reductions affect 7.2 per cent. of the total imports under that schedule to the extent of 23 per cent. below the Dingley rates; the increases cover 4.25 per cent. of the total, the increase being nearly 28 per cent. above those rates, and 88.5 per cent. of the total are left subject to the old rates. With the exception of a reduction amounting on the average to less than 5 per cent. on common window glass, on which the duties ranged from 41 to 87 per cent. under the Dingley tariff, there are no reductions in this schedule that are of interest to the general public. On the other hand, while the rates on crockery and china-ware are left nominally unchanged at 55

and 60 per cent. ad valorem, there is a possibility of a considerable increase of duties on these goods, especially the finer grades, under the new provision for estimating market value in certain cases on the basis of domestic prices instead of those in foreign markets.

REDUCTIONS IN THE METALS SCHEDULE.

Schedule C, embracing all metals and their manufactures, has attracted more general attention than any other of the schedules, which have but an indirect bearing on the household budget of the consumer. Covering as it does an industry in which the United States leads the world, dominated by the largest aggregation of industrial capital the world has yet witnessed, and having been the subject of more convincing testimony from insiders, like Mr. Carnegie, as to absence of danger of injurious competition from abroad than any other part of the tariff, the schedule has undergone a more thorough revision downward than any other. Many of the reductions amount to 50 per cent. Some rates have been reduced still more, as, for instance, iron ore, from 40 cents to 15 cents per ton.

Nevertheless it is claimed by critics of the new tariff that the reduced rates remain far above what is necessary to insure a fair profit to the steel industry, and it is confidently predicted that with the new duty of \$3.92 per ton foreign steel rails will be as effectually shut out from our market as they were under the Dingley rate of \$7.84, under which our importations in 1907 amounted to \$106,000 worth. The significance of this figure will be readily appreciated when it is added that during the same year we exported \$8,384,000 worth of rails to foreign countries, where we not only had no protection, but in some cases had to overcome, in addition to the cost of transportation, the duties imposed for the protection of our foreign rivals.

According to the official estimates of the Senate Committee on Finance, the average reduction of duty is equal to $2\frac{1}{2}$ per cent. from the Dingley rates on the entire metal schedule. This estimate, however, overlooks, in some cases entirely, in others largely, increases of duty which are not readily apparent, among which the following are specific instances: On punched structural iron and steel, from \$10 a ton under the Dingley tariff to about \$18 and more under the new law; increases of duty on

razors ranging from 21 to 229 per cent.; on nickel and its alloys, of about 133 per cent.; on metallic pens "with nib and barrel in one piece," amounting to 25 per cent.; on bottle caps and on lacquered cans, boxes, 22 per cent. and more.

In so far as these increases are due to changes in classification, they are not noted in the estimates of the Senate committee at all, or they are so palpably underestimated as to reduce greatly the practical utility of the committee's computation. As the change in classification is characteristic of changes made in other schedules of the tariff, including those of cotton and silk, to which reference has been made, it will be useful to describe one as an illustration:

The duty on structural steel, "whether plain or punched, or fitted for use," was \$10 a ton under the Dingley tariff. The House, without changing the wording of the paragraph, reduced the rate to \$6. When the bill reached the Senate the Committee on Finance struck out the words just quoted, substituting the words "not assembled, or manufactured, or advanced beyond hammering, rolling, or casting," fixing the rates for these at \$6 and \$8 a ton, according to the value of the iron, but leaving no provision for the punched shapes, which is the only way in which the bulk of structural iron is sold for practical purposes. This will bring the punched structural iron under paragraph 199, which provides for a duty of 45 per cent. on all manufactures of metal not specifically mentioned. At the price of \$30 to \$40 per ton the duty on the material will amount to from \$13.50 to \$18 per ton, an increase of from 35 per cent. to 80 per cent. over the Dingley rates. Yet, as this increase is not specifically mentioned in the tariff, it does not appear in the computation of the Senate Committee on Finance, which instead shows a reduction of duty for structural iron from 36.75 per cent. under the Dingley tariff to 29.40 per cent. under the new law.

WOOD AND ITS MANUFACTURES.

In a similar manner, the official estimate shows a reduction of duties on lumber and its products (Schedule D) of more than 14 per cent., but it takes no account of changes in classification deftly wrought into the fabric of the new tariff law. Thus the Dingley law provided for a duty of 1 cent per cubic foot on "timber, hewn, sided, or squared." Mr. Payne, while reducing the

rate to one-half of 1 cent, allowed the lumbermen on his committee to modify the definition so as to read "timber, hewn, sided, or squared *otherwise than by sawing*." As sawing has now taken the place of hewing in the lumber industry, the innocent looking addition has virtually taken all the squared timber out of that class and thus placed it constructively under "boards," which will result in an increase of 50 per cent. over the Dingley rates. Yet in the official compilation it appears as a reduction of 50 per cent., which is nominally true (so far as the abstract figure is concerned), but actually false (in so far as the application of the law is concerned). An apparent increase in the schedule is that on shingles, on which the duty has been raised from 30 cents a thousand under the Dingley law to 50 cents, or 66 2-3 per cent. In 1907 we imported less than \$2,000,000 worth of shingles, which was not far from 5 per cent. of our domestic production.

SUGAR AND TOBACCO.

The duty on refined sugar has been reduced from \$1.95 per 100 pounds to \$1.90, or 2½ per cent. When it is considered that since the enactment of the Dingley tariff in 1897 we reduced the duty on raw sugar coming from Cuba 20 per cent., that annexation placed raw sugar of Hawaii* and Porto Rico on the free list, and that the new tariff provides for the free admission of sugar from the Philippine Islands to the extent of 300,000 tons per annum, or about three-fourths the quantity we import from the Hawaiian Islands to-day, it is difficult to escape the conclusion that the attempt on the part of the insurgent Republicans to bring the reductions on refined sugar in consonance with the 20 per cent. reduction on the raw material of the sugar trust deserved greater success.

The tobacco schedule has been left practically unchanged so far as the tariff is concerned. The partial increases in rates brought about through the efforts of Senator Beveridge with a view to compelling the tobacco trust to bear a share of the burden of the tobacco excise apply to internal taxes.

* Prior to the annexation, sugar from Hawaii was admitted free of duty under the reciprocity treaty; but in the absence of definite assurance that the free admission of sugar might not be stopped with a change of policy in the United States the production of sugar was not as large as it is to-day. The importation of sugar into the United States from Hawaiian Islands has increased from 529,532,192 pounds in 1897, the year preceding annexation, to 821,014,811 pounds in 1907.

AGRICULTURAL PRODUCTS.

According to the "estimated revenues" of the Finance Committee, the average rate under the agricultural schedule represents an increase of nearly 6.5 per cent. It may be interesting to note that we are the only great agricultural nation in the world that levies a duty on cereals. While producing four times as much corn as all the rest of the world, we have a duty on that cereal, although our imports of corn were worth less than \$8000 in 1907, as against exports exceeding \$44,000,000 in value. As a source of revenue these duties are worthless; as a means of protection they are useless; as a sop to the farmer they may be worth a great deal to those who need the agricultural votes for extreme protection on goods which the farmer consumes. It is startling, but nevertheless true, that cereals, meats, and similar products of which we export immense quantities to the dismay of the agrarians in Germany and other countries, are subject in this country to rates nearly as high and in some cases higher than in Germany. But in Germany the people are up in arms on account of it, while here the man in the street is hardly aware of the fact. This is due to the fact that the rates have so far remained on paper, without affecting the prices of food-stuffs which we raise in abundance.

These rates were raised by the Senate Committee, the increases ranging from 20 to 100 per cent. on cereals like wheat, corn, rye, etc. The increases were abandoned in conference in return for increased rates of duty on lemons (50 per cent.), grapes (25 per cent.), pineapples, dates, cornmeal, buckwheat flour, plants and vines, etc. Among the more important reductions in this schedule are those on meats, lard, and starch, the reductions averaging 25 per cent. from the Dingley rates. The least justifiable increase is that on biscuits and other products of the cracker trust, which enhance the Dingley rates from 75 to 150 per cent. As the total importation of bread and biscuits amounted to \$252,000 in 1907, against exports of over \$2,638,000 in the same year, the pertinent question was raised in the Senate as to the object and justification for this increase.

SPIRITS, WINES, AND OTHER BEVERAGES.

This schedule (H) has been revised upward for revenue purposes. The duty on spirits and brandies has been raised from \$2.25 to \$2.60 per proof gallon. The duty

on champagnes, which was \$6 per dozen quart bottles under the minimum Dingley rate and \$8 under the maximum, has been raised to \$9.60 as a minimum and \$9.60 + 25 per cent. ad valorem as a new maximum. Similar increases will affect other alcoholic beverages.

PULP AND PAPER.

The question of wood pulp and paper (Schedule M) formed one of the prominent points of attack on the Dingley tariff in the campaign for its revision. The select committee of the House, headed by Congressman Mann, of Illinois, a staunch protectionist, gave the entire subject eight months of thorough study, and personally inspected the leading paper mills in this country and Canada. The committee established the fact that the labor cost of the manufacture of paper is lower in the United States than in Canada. It recommended the placing of wood pulp on the free list and the reduction of the Dingley duty on paper from \$6 to \$2 per ton. The House adopted the recommendation of the committee. The Senate raised the duty to \$4. The conference compromised on \$3.75. Both the free admission of pulp and the reduction of duty on paper are conditioned on the absence of export duties on the raw material or export bounties on the finished products by Canadian provinces. They are also conditioned upon the existence of "most-favored-nation" relations with our neighbor to the north, after April, 1910, which is not the case to-day.

As against these contingent reductions of duty on print paper, there are unconditional increases of duty on writing paper, which affect the reductions to an extent sufficient to raise the general average of the paper schedules, according to the estimates of the Finance Committee, by nearly 5 per cent. This does not take into account, however, increases of duty hidden in changes of classification, such as on lithographic prints of all kinds, ranging from 6 per cent. to 90 per cent. above the Dingley rates, press paper and wrapping paper 40 per cent., etc.

SUNDRIES, LEATHER, COAL, ETC.

This schedule (N) covers a great variety of products, the most important group being hides, leather, and leather goods, which attracted so much popular attention owing to the part the President took in forcing the removal of duty on the raw material. Of all manufactured products, shoes and shoe

leather are subject to the lowest rates of duty under the new tariff, the rates on sole leather being as low as 5 per cent; on uppers, $7\frac{1}{2}$ per cent.; on shoes, 10 per cent. All other manufactures of leather not specially mentioned are subject, however, to 40 per cent., which is an increase of 14 per cent. over the Dingley rates, in spite of the removal of the 15 per cent. duty on hides; while on gloves the rates are as high as 81 per cent. and more, being absolutely prohibitive on many grades.

Another important reduction of duty is that on coal, from 67 cents a ton to 45 cents. The House provision for reciprocal free trade in coal, which would have been an important card in our hands in negotiations of a reciprocal trade agreement with Canada, was stricken out in the Senate.

The duty on agricultural machines and implements, such as plows, mowers, thrashers, reapers, etc., has been reduced from 20 per cent. to 15 per cent., and a proviso has been added for the free admission of these machines from countries reciprocating in kind. This will at once give an advantage to England as against other countries, unless the latter put the same articles on the free list. In view of the recognized superiority of our makes, however, the provision is not likely to prove of much practical importance, with the possible exception of Canada, if the latter chooses to accept the condition.

The duties on hats and bonnets valued wholesale at not more than \$4 per dozen have been reduced from an average of 97 per cent. ad valorem under the Dingley tariff to 78 per cent.

Among the increases of duty in this schedule due to changes in classification the most important are on manufactures of furs, which are raised from 43 to 75 per cent. above the Dingley rates of 35 per cent. ad valorem; on fire arms, on which rates have been increased 50 per cent. above the old tariff; on fabrics of asbestos the increase being 60 per cent.

The duties on feathers and downs are raised from 15 per cent. under the Dingley tariff to 20 per cent. under the new, and ornamental feathers from 50 per cent. under the Dingley rates to 60 per cent. The duties on manufactures of straw have been increased from 30 per cent. under the old tariff to 35 per cent. The same is true of the duties on manufactures of horn and india rubber.

The official estimate shows an average in-

crease of 6.26 per cent. for this schedule over the Dingley rates.

SUMMARY.

Summing up the changes made in the tariff as shown in the various Senate documents, the new act has increased the Dingley rates in 300 instances, while reducing them in 584 cases. The increases affect commodities imported in 1907 to the value of at least \$105,844,201, while the reductions affect not more than \$132,141,074 worth of imports. Four hundred and forty-seven million dollars' worth of imports (on the basis of 1907) remain subject to the same duties as under the Dingley tariff. That is to say, 65 per cent. of the total imports remain subject to the old rates, more than 15 per cent. of the total will be subject to higher duties, the average increase amounting to 31 per cent. over the Dingley rates; and less than 20 per cent. of the imports are to be subject to lower duties, the reduction being estimated about 23 per cent. below the Dingley rates. All of these figures greatly underestimate the increases of duty for the following reasons: First, they do not take into account the numerous changes (nearly all increases of duty) due to changes in classification, similar to the instances cited in the case of sawn wood, structural iron, and cotton cloth; second, a large part of the imports subject to ad valorem duties will now be assessed on the basis of domestic prices instead of the prices in foreign markets (with due allowance for freight and duty), as has hitherto been the case; and, finally, the possibility, even if remote, of the application of maximum rates to imports from some of the foreign countries, which will amount on the average to an increase of more than 50 per cent. over the new rates. The real increase of duty will not be accurately known for a year, until we have full returns of the imports and duties actually levied under the new law under the decisions of the Board of General Appraisers and the new Customs Court.

THE MAXIMUM AND MINIMUM PROVISION.

The agitation which led to the revision of the tariff was to a large extent due to a widespread desire for reciprocity with foreign countries. The Dingley tariff gave the Executive two ways for negotiating reciprocal treaties. One (Section 3) authorized concessions of from 20 per cent. to 25 per cent. from the established rates on argols, wines,

brandies, paintings, and statuary; the other (Section 4) authorized concessions not to exceed 20 per cent. from the entire tariff list. The former set of concessions could be granted by the Executive without reference to Congress and led to the conclusion of highly profitable trade agreements with the leading European nations, which are still in force, but whose abrogation has now become mandatory. The other led to the negotiation of treaties which failed of ratification by the Senate and therefore never went into effect.

The new tariff raises the minimum rates of Section 3 of the Dingley act far above the old maximum, the increase being from \$6 to \$9.60, or 60 per cent., on sparkling wines; from \$1.75 to \$2.60, or nearly 50 per cent., on brandies, etc., which is a serious change for the worse for countries like France, Italy, Spain, and Portugal, all of which have enjoyed the minimum Dingley rates under the reciprocal agreements.

The large number of reductions scattered through the bill are, as has been pointed out here, more than offset by the increases of duty. The reductions are, as a rule, on articles of which we are not likely to increase our importations, while the increases are calculated to prevent or diminish importations. The new bill thus holds out but few inducements to foreign nations and fails to provide a broad basis for reciprocal treaties upon which to secure concessions for American products in foreign markets. Its strength lies not in the minimum rates as a basis for reciprocity but rather in the maximum as a means of retaliation. The maximum tariff is a flat surtax of 25 per cent. *ad valorem* on all dutiable goods, which is equivalent on the average to a surtax of over 50 per cent. on the new rates. For any other nation to attempt to secure better trade terms from foreign countries while offering them worse terms than before would mean to invite a tariff war with the rest of the world. With us, our market offers such an attractive field for foreign producers and our abundant resources make us so little dependent on the outside world that we occupy an immensely superior strategic position, which most of the foreign countries will be reluctant to test by tariff hostilities, unless driven to do so by sheer desperation. Nevertheless the possibility and even the probability of a tariff war exists in the case of two countries, France and Canada. Much will depend upon the use made by the

President of his power of discretion in interpreting what constitutes discrimination against American products.

It is significant that the new tariff act in laying down the conditions for the application of the maximum and minimum rates by the President calls not for special concessions to American commerce but for terms as favorable as those granted to other nations. As these have been secured to suit the special wants of the countries concerned, they will benefit us only in cases where we happen to have similar interests, while leaving the special American interests unattended to.

The act provides that the maximum rates are not to go into effect before April 1, 1910. At the same time the Executive is directed to terminate all existing trade agreements. In the case of the French agreement, which does not provide for due notice as to its termination, the act directs its termination on November 1. This will result in the application of the increased rates on French wines, brandies, etc., before they are applied to other countries. The termination of the agreement on our part will, however, result automatically in the application of the maximum French rates to our fruits, canned meats, pork, lard, lumber, Porto Rican coffee, and possibly petroleum, which are from 25 per cent. to 100 per cent. above the minimum rates enjoyed by these products of American origin to-day. Thus, the undue haste to apply our increased rates to France, while the other countries continue to enjoy the reduced Dingley rates, may result in the application of the entire maximum tariff of France to our products, unless the Government succeeds in the difficult task of concluding a new treaty with France before November 1.

The tariff act has failed to provide for maximum rates on articles placed on the free list. By doing so it has deprived the Executive of the only trading cards he might have with countries to the south of us, like Brazil, whose coffee, rubber, and hides, constituting about nine-tenths of her entire trade, will be admitted free of duty to our markets, while it subjects American products to rates so high as to be frequently prohibitive. The provision of a maximum duty on these articles would have given the President the means for obtaining more favorable terms for our commerce in South America, without danger of the actual imposition of those rates to the detriment of the American consumer.

LEADING ARTICLES OF THE MONTH.

THE NEW TAX ON CORPORATIONS.

IN the August issue of the *North American Review* Mr. Charles A. Conant enumerates and annihilates some of the objections raised to the new tax upon the net earnings of corporations. In the opening paragraph of his article he maintains that the critic who calls the tax "socialistic" must "either confess his ignorance of the legislation of the most conservative countries of Europe or must be prepared to contend that they have already been captured by the enemies of society." That there should be an outcry against any measure "which touches the pocket nerve" is, as he says, inevitable; but "those who cry out against a rate of 1 or even 2 per cent. upon corporation earnings, after the deduction of operating cost, depreciation charges, and interest on bonds, may well be set to studying the corporation and income taxes of Europe." As a result of their studies they would discover the following facts:

In Great Britain in 1903 the income tax was 6.15 per cent., and the amount taken from the pockets of the taxpayers was in excess of \$175,000,000. In Prussia even incomes below \$900 pay a small charge, and those above that amount are subject to a progressive rate, which rises to 4 per cent. In Austria the income tax includes a rate of 5 per cent. upon income derived from securities or from industrial and commercial operations. In France business is subjected, apart from many other taxes, to a so-called patent tax, based upon the size of shops and number of employees. . . . The total deduction by taxation from the income of securities in France is estimated by Professor Leroy-Beaulieu at from 9 to 10 per cent. . . . In Russia a still heavier burden was imposed by the law of 1898 upon the profits of stock companies, by fixing a progressive rate, beginning at 3 per cent. where profits were not above 4 per cent. of capital and rising to 6 per cent. upon profits reaching 10 per cent. of capital, with a still heavier charge where profits exceed 10 per cent.

Compared with these figures our new tax is moderate indeed. Reckoning the total share capital of joint-stock companies in the United States at not less than \$25,000,000,000, and net earnings on the same at \$1,500,000,000, a "levy of 1 per cent. will bring into the public treasury \$15,000,000."

The striking absence of denunciation of the new tax "from the ranks of those qualified to express an opinion upon its economic merits" can only be due to the fact that "the principle of the tax is recognized everywhere as economically sound and that it lacks the conspicuous defects of the personal income tax in regard to facility of collection." As Mr. Conant points out, a tax on net earnings is a tax upon capital which has been accumulated. It is not a tax upon capital in the making. A levy upon net incomes is much more equitable than one upon gross earnings. "Gross earnings bear no definite or equitable relation to profits; net earnings are the exact measure of profit and success."

One of the objections raised against the new tax has been that the "widow-and-orphan" stockholders would find their incomes reduced thereby. This objection "falls to the ground with many others before the lightness of the burden which the tax involves." A corporation earning \$1,000,000 above all the charges which the law allows to be deducted "would have just sufficient profits to pay a dividend of 10 per cent. on a capital of \$10,000,000. . . . The tax of \$10,000, at the rate of 1 per cent. on net earnings, would reduce the balance to \$990,000; so that in theory the 'helpless widow' would find her dividend cut from 10 per cent. to 9.9 per cent." Other objections are that the tax will be evaded "by turning stock into bonds, by diverting earnings into increased salaries, and by false returns." Though these devices may occasionally be resorted to, Mr. Conant believes that "it is insulting to the intelligence of the average corporation board to suppose that they will be adopted by any considerable number of them in order to escape a tax of 1 per cent." As to the keeping of fraudulent books and the making of false returns, the risks and difficulties involved would not be compensated by the saving, viewed purely from its practical side.

Probably the most serious objection of all is, as Mr. Conant correctly observes, that

which commends it to the people: this is "the power which is given to the Federal Government to make such investigations as are necessary to determine if the tax has been paid upon actual net earnings." To Americans who resent such "inquisitorial" methods Mr. Conant suggests that they study the corporation laws of Europe in general and those of England in particular:

A corporation in England cannot issue a prospectus which is not signed by every person who is named therein as a director or by his agent. What prospectuses of new companies must contain is carefully defined. . . . Whenever a company makes an allotment of shares it must file within one month with the public registrar a return of the allotments. . . . If default is made in any of the requirements, every director, manager, secretary, or other officer of the company who is knowingly a party to the default shall be liable to a fine not exceeding £50 for every day during which the default continues.

If Great Britain, the most conservative country in the world and the one in which trade,

apart from other Anglo-Saxon countries, is probably the most unfettered in the world, sees fit to impose restrictions like these upon invitations to the public to subscribe for securities, then at least the mouths should be stopped of those who, in ignorance of the facts, may be disposed to characterize rigid company regulation in the United States as socialistic and without precedent. On the contrary, the United States, if she determines to establish uniform regulation in behalf of the investor and shareholder, in place of the present haphazard and disjointed system of company management, will follow a path of precedent beaten wide and smooth.

The great advantage of a tax on net earnings is "its adaptability to changing conditions." In this respect "it runs on all fours with the English income tax, of which the rate can be changed from year to year, according to the requirements of the budget." The adoption of a tax capable of being varied from year to year in order to meet the condition of the budget will be "in itself a fiscal reform of the first importance to the Federal Government."

THE AERIAL BATTLESHIP—THE END OF WAR?

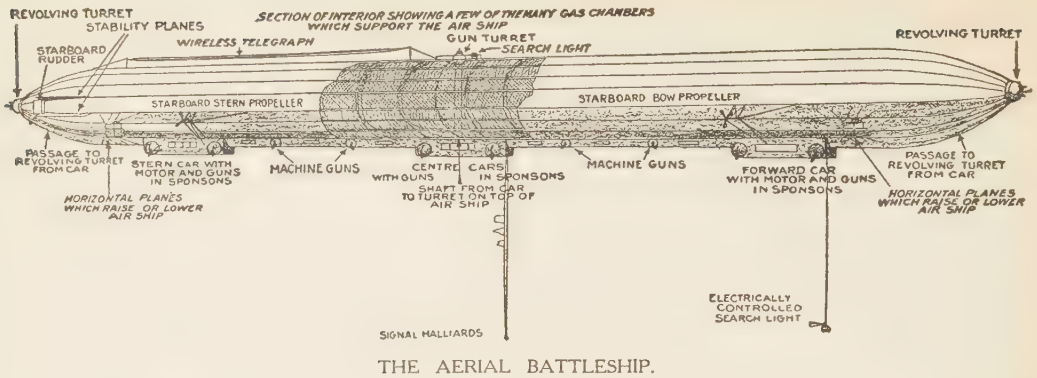
THE public has come to regard the airship,—dirigible, monoplane, biplane and what not,—as so essentially one of the glorious inventions of peace that somewhat as a shock comes the discovery that the machine is already in process of development into the most deadly engine of war that the world has ever known or even dreamed of. Indeed, the possibilities of its destructiveness seem to be limitless and to threaten the complete revolution of modern warfare, if not,—a consummation devoutly to be wished,—the abolition of war itself. That all this is no mere idle speculation is most forcefully demonstrated by Messrs. Carl Dienstbach and T. R. MacMechen in *McClure's* for August in an article which is the most forceful presentation of the military side of aeronautics that we remember to have met with.

It will, we think, be news to many of the readers of the REVIEW that "in the fall of 1908 the third airship built by Count Ferdinand von Zeppelin was bought by the German Government, officially commissioned as a warship, and given a military crew." Also, that "in secret trials by the German Government during March a rapid-firing gun, capable of throwing nearly sixty 1.9-inch shells a minute, was fired with entire success from the deck of the *Zeppelin I*." This, say the

writers under review, "means the end of armies within the next ten years. The situation about which there is now the densest ignorance should be understood." They proceed to give the following succinct description of the dirigible:

A Zeppelin airship is not a balloon, but a true ship,—exactly corresponding to an iron ocean ship. It has a strong rigid hull; it is sustained by displacing more than its own weight in the fluid that supports it; it will sink only if it leaks badly. Neither the airship nor the iron ocean ship is in the slightest danger of sinking except by grounding or collision. . . . It is protected by a cover of tough rubber-cloth, stretched over aluminum rings and ribs, each strong enough to support a man's weight; and the whole is greatly strengthened by the upward pressure of the hydrogen in its inside balloons. It is fully as strong for its purposes as an iron steamship. The airship is never strained by rolling or pitching, like the steamer, because the air acts upon it as a current and not as waves.

The strength and stability of these airships are now demonstrated facts. Ascents have been made in snowstorms and in a blizzard; "and the huge craft, the size of Atlantic liners, have all this time been landing on the ground, without special wharves. A captain attempting the similar feat of landing a great steamship upon a shore without wharves would be considered insane." Of



THE AERIAL BATTLESHIP.

the speed and economy of the new aerial "liner" we read:

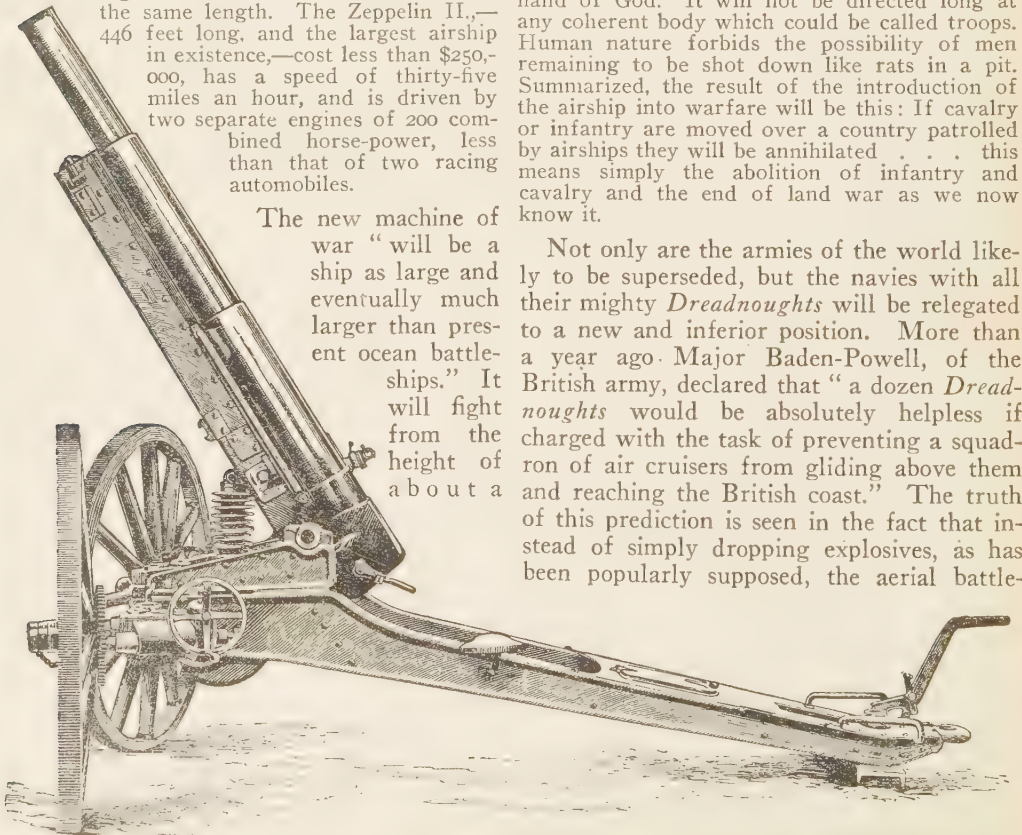
Water being eight hundred times heavier than air, airships will never compete with steamships as freight carriers. For exactly the same reason they will develop double or triple the speed of the ship in the water; they will do this driven by engines of less than 2 per cent. of the power of the steamer; and their lighter material will allow them to be built at within 15 per cent. of the cost and time that are required for the building of a first-class ocean steamer of the same length. The Zeppelin II.,—
446 feet long, and the largest airship in existence,—cost less than \$250,000, has a speed of thirty-five miles an hour, and is driven by two separate engines of 200 combined horse-power, less than that of two racing automobiles.

The new machine of war "will be a ship as large and eventually much larger than present ocean battleships." It will fight from the height of about a

mile above the earth, and will maneuver during battle at a rate of sixty to sixty-five miles an hour. The deadliness of its fire is thus portrayed:

Nothing alive on the ground can escape the fire of an airship . . . its chief reliance in fighting infantry or cavalry will be upon the machine rifle, which can turn a stream of 400 bullets a minute on any troops within two miles. . . . The fire of an airship will annihilate infantry and cavalry beneath it as surely as the hand of God. It will not be directed long at any coherent body which could be called troops. Human nature forbids the possibility of men remaining to be shot down like rats in a pit. Summarized, the result of the introduction of the airship into warfare will be this: If cavalry or infantry are moved over a country patrolled by airships they will be annihilated . . . this means simply the abolition of infantry and cavalry and the end of land war as we now know it.

Not only are the armies of the world likely to be superseded, but the navies with all their mighty *Dreadnoughts* will be relegated to a new and inferior position. More than a year ago Major Baden-Powell, of the British army, declared that "a dozen *Dreadnoughts* would be absolutely helpless if charged with the task of preventing a squadron of air cruisers from gliding above them and reaching the British coast." The truth of this prediction is seen in the fact that instead of simply dropping explosives, as has been popularly supposed, the aerial battle-



THE KRUPP FIELD GUN FOR SHOOTING AIRSHIPS.

ship will attack its ocean enemy with large aerial torpedoes filled with high explosives. This torpedo will "be fired from a long, light tube; and the force of gravity acquired in the fall of a mile through the air will give it a great speed by the time it reaches the deck of a ship."

With the advent of the aerial battleship there will, necessarily, come the rivalry in building now existing with regard to battleships of the sea. It is the opinion of those competent to judge that a quarter of a mile is "a conservative estimate of the size that these ships will attain in a few years." A ship the size of the *Mauretania*,—that is, 790 feet long,—can quite certainly be expected within the next few years.

As regards the armament of the new aerial men-of-war the Messrs. Krupp have already produced a rapid-fire weapon weighing about 160 pounds; and these and the machine rifle would work such havoc that the non-expert cannot estimate its destructiveness.

In the public mind the "German invasion

of England," of which so much has been said and written of late, has been a land invasion. All the while Germany has been forging ahead with her preparations for invasion by air. From the article under notice we learn that Germany "has now nearly completed a \$1,500,000 airship plant at two adjoining towns on Lake Constance; that the plant contains four docks, which in time of war could turn out fifty or sixty airships a year. The airships that are to be built for the conveyance of passengers from one part of Germany to another are all to be chartered by the government and will be convertible into aerial battleships just as ocean liners to-day are held available as auxiliary men-of-war.

But,—will aerial warfare be permitted? "War a mile above the earth between corps of artillery firing into huge bodies of inflammable gas, where the defeated plunge down to the ground a mass of charred pulp, will become a thing too spectacularly horrible for conception. Will civilization permit it to exist?"

HOW PLANTS SEE.

THE power of plants to adjust themselves in whatever position may be most desirable with regard to the light is very curious, for the movements are as purposeful as if made under intelligent direction, and yet the plant cannot be credited with the possession of even an apology for any sort of a brain, although that is usually looked upon as a *sine qua non* for the seat of intelligence.

In the *Jahrbücher für wissenschaftliche Botanik* (Leipsic) Dr. G. Haverlandt publishes an interesting article, describing the minute structure and the mode of operation of the parts in plants that are specially designed for the perception of light.

The light-perceiving organs of plants are legion. They are cells in the epidermis which are lined on their inner wall with a thin layer of living matter that is especially sensitive to the rays of light that fall upon it. This sensitive layer underneath is enabled to take note of the direction from which the light comes by means of certain peculiarities of structure in the main part of the cell above it. That produces a symmetrical illumination of the cell when the light falls perpendicularly and an asymmetrical illumination when it falls obliquely.

These organs show modifications of two main types. One type, formed by smooth epidermis, has cells with a plane outer surface. This is the simpler type, of less perfect design than the other, for it merely allows the light to pass through and fall on the sensitive layer beneath, but does not aid in bringing out differences in the intensity of illumination by concentrating the rays of light over definite areas.

The second type is formed of papillose epidermis, which is made up of cells with curved outer and plane inner surfaces, forming, in effect, microscopic plano-convex lenses. In these, according as the illumination is perpendicular or oblique, the layer of living matter beneath receives either a symmetrical or an asymmetrical dispersal of light, and this, together with the greater concentration on the sensitive layer, gives a much better indication of the direction of the light than is possible with the first type.

There are myriads of these organs which serve as a kind of eye, although they are only crude attempts of nature, and at best can do no more than indicate variations in the intensity and direction of the light. They do not even show uniformity of structure.

Experiments that were made upon plants

to determine how fine a sense of light-perception they possess showed conclusively that many species of plants can detect fully as

slight differences in the intensity of light as man, but there can be no comparison beyond a general sensitiveness to light.

HEREDITARY TRANSMISSION OF DISEASE.

OBSERVATION of the inheritance of certain familiar diseases of the central nervous system prompted Dr. L. Merzbacher to undertake an extensive series of investigations in order to find out any possible evidence that the inheritance of diseases or defects is governed by definite laws of general significance to the human race.

He publishes the results of his work in the *Archiv für Rassen und Gesellschafts Biologie*, where he states that he was called upon to make a post-mortem examination of the brain of a man in which he found the cellular gray matter somewhat atrophied, but the fibers about normal. Afterward he looked into the history of the family and learned that the man's son had died at the age of twenty, after having suffered from youth with a disease with which three of his sisters and a grandmother were afflicted at the time, and which had been widespread through the family for several generations past.

The writer himself learned, in all, of twelve cases of closely related diseases extending through three generations, and then it transpired that he had chanced upon a family previously studied by a member of the Board of Health, whose observations corroborated his own, and also extended the records through as many as seven generations along diverging lines of the same family, comprising altogether a most valuable contribution to our knowledge of the possible inheritance of tendencies toward disease.

The diseased condition was progressive, but it was not always the same malady that developed in related families. Among the disorders that appeared were atrophy of the muscles of the lower leg and foot, atrophy of the optic nerve, hemophilia, hemeralopia, and color blindness. These would appear in the same family succession for one generation after another.

In twelve of the families that formed links in the chain of evidence the malady developed in the children during the very first months of life, and the symptoms usually became more severe as time went on.

Sometimes the disease peculiar to the family would disappear completely for a genera-

tion and then reappear in the next. Often only one or two members of a large family would be affected, while the others would be entirely free from it, and it was noticeable that many more men than women were affected. Color blindness especially afflicted the men much oftener than the women.

Diagrams accompanying the article show the path of the diseases through the generations, and bring out the curious fact that the mother's influence predominates, and that she, more often than the father, transmits to the children a tendency toward disease or health.

In fact, there was not a single case where a son of a diseased family line transmitted the disorder to his children, the influence of the wife apparently overcoming any such tendency. But on the other hand children of daughters from the same family developed the disease even when it had not appeared in the mother.

Apparently, in contradiction to this was the fact that the disease seemed to have originated in a man whose case was recorded in the beginning of the line of succession.

From all the cases considered together the writer draws a number of general conclusions, in which he states that the rudiments of a defect or a disease may descend by heredity, but remain latent in the system without giving any evidence of its presence through several generations.

When such latent tendencies toward disease are present in the father they are not inherited by the children, and would rarely be directly inherited from a father in whom the disease was actively developed, although a latent tendency might be inherited by his daughter and appear actively developed in her children, but the children of the same man's sons would not inherit it.

The mother's influence is stronger, and she may transmit a defect or a disease that is latent or active in her own system, or if she has no such tendency she may overcome any influence of that sort on the father's side.

When a disease of this sort becomes established in a family it shows great stability in its development.

SOME PORTENTOUS ASPECTS OF THE M'KEES ROCKS STRIKE.

ROBERT BROWNING in one of his poems speaks of "the great right of an excessive wrong"; and it would be difficult to find a more apt illustration of this forceful phrase than that furnished by the recent strike at the plant of the Pressed Steel Car Company at McKees Rocks, a little below Pittsburg on the left bank of the Ohio. According to Mr. Paul U. Kellogg, who has been investigating conditions at the Schöen works, where the strike originated, and who publishes the results of his inquiries in *The Survey* for August 7, it was a case of the employers saying to the employees: "Take what you find in your pay envelopes and be thankful. Don't bother us with questions. If you are not satisfied with your jobs get out and make room for the many who are ready to take them." To Mr. Kellogg's mind the strike presents some very important aspects. On the side of the men it is half-prophetic.

It is a clean-cut illustration of the part which the Slavs may play in the industrial life of this

country. It is the protest of the half-assimilated, the half-Americanized, the half-skilled against the very industrial policies which have brought them here and which, by the deploying of fresh migrations, tend to keep them all down to what the company calls "ordinary day labor." . . . It finds American workmen casting their lot with the Slavs, and it finds public opinion in the Pennsylvania steel district backing up their joint cause.

On the part of the employers, it may mark the introduction of a new system of industrial administration. Mr. Kellogg writes:

It [the strike] was caused by the rigorous, logical extreme to which the employing company carried out what they conceive to be progressive policies in multiple production. My understanding is that during the period of hard times they overhauled their equipment in such ways as to make them less and less dependent upon trained men. They established a track system by which even a crude working force practically drives itself in turning out cars, and a pooling system of payment which keeps the labor cost per car within a fixed charge to the company and which unloads the hazards of lost time and mistakes in construction largely upon the men. Apart from the vagrant charges of



From the Pittsburg Dispatch.

A GROUP OF AMERICAN STRIKERS AT M'KEES ROCKS.



From the *Pittsburg Dispatch*.

SOME OF THE FOREIGN-BORN STRIKE LEADERS AT M'KEES ROCKS.

graft and abuse by foremen . . . the strike has been over a sweeping reduction in wages (as against 1907) which the men laid up to this new system. Their grievances crystallized in the charge that they had no means of knowing what was coming to them on pay day, and that when they complained about it they were given neither rate nor redress.

For, along with their modern operating policies, the company cling to an inflexible assertion of the most ancient property rights as a basis for running their plant. They will not tolerate petitions or meet with representatives of the men, and they refuse to arbitrate. They hold that so long as a man accepts employment in their works he must accept the terms they grant or quit; that so long as he can quit work the man who thinks himself under-paid has no grievance; and that (if one is to believe the *Pittsburg press*) whether one man or a thousand quit work is none of the public's business. Its part is to keep the peace. That is what the company pays taxes for.

The track system was installed early in the year and the pooling system was at the same time given a general application. The track system is thus described:

The steel comes in sheets, is cut in lengths, heated and pressed, marked and punched, fitted with bolts, put together and riveted. . . . A track runs the length of the erection aisle. The trucks are placed on the track at one end, electric cranes pick up the plates, piece by piece they

are put together and riveted, and a completed car rolls off the other end of the track. There are perhaps twelve positions on this track, and at each position a group of men who perform one step in the process of completing a car. Every position is allowed, say, twenty minutes. If the gang at position 8 is slow, or has difficulties in getting out its stint, it holds up the whole procession, and every man in the earlier positions loses time. Gang 8 always wants car B from gang 7 the minute it is through with car A; and gang 7 always wants gang 8 to be through with car A by the time it finishes car B, so it can take car C from gang 6. If time wages were paid and a car erected in a stationary position, all the delays would fall on the company, and only constant prodding from a foreman would keep a loafer or a greener at high speed. By means of piece wages and a track down the erection aisle one gang drives another.

Formerly the men were paid by "straight piece work . . . and they would know at the end of a fortnight how much was coming to them." Under the pool-piece-work system introduced by the company the men "don't know what the pool is going to get per piece for any of the work it does, nor the lump sum due it at the end of a fortnight." Another charge is that under this system if work is spoiled the whole pool has to suffer.

Besides these grievances the men have others connected with their occupancy of houses owned by the company in a district "popularly known as Hunkeyville. These rent for \$12 a month for four rooms without water." A laborer cannot afford to rent one of these houses unless he fills it with lodgers; and there is continual trouble with the "house boss." "He is the pasha of Hunkeyville; and the opportunity for extortion is ready to hand. . . . One house boss had himself made a justice of the peace, and in that position made money hand over fist."

When 600 men in the erection department went out the company says they demanded 30 cents an hour and an eight-hour day. The men, however, state that they wanted a "working understanding so that they could know what was coming to them." The attitude of the company is clearly defined in the following statement, given to the press by President F. N. Hoffstot:

Some 600 of our workmen have seen fit to quit their employment. That is all right. If a man is dissatisfied with his work, or with his hours, or with his wages, it is his privilege to quit, but when he says another man who wants to work can't work, and won't let him work, why then that is a different matter. . . . There is nothing to arbitrate in the present difficulty. The officers of the company will not meet with any committee of the men. . . . The jobs are there for the men as soon as they want to go back to work, but the 600 who started all the trouble cannot work for the company another day.

When Mr. Kellogg visited the strikers he found 3000 men sitting on the ground listening to the various speakers. There was no disorder or violence. For the first time Americans had joined the Slavs; and one of them declared: "They have got the whole of us to fight now. We are trying to be men among men." It is this combination which gives the McKees Rocks strike a new significance in the labor troubles of Pittsburgh.

HITTING POWER OF THE AMERICAN NAVY.

THE story of the reinstatement and growth of target practice in the United States Navy during the last few years is graphically told by Rear-Admiral Robley D. Evans in *Hampton's Magazine*.

Most captains and all executive officers looked on it as a necessary evil, as it blackened the decks and the paint-work, broke more or less chinaware, and was generally a nuisance. The gun pointers were drilled to aim in the old way,—that is to say, the gun was so trained that the sights would come on the target as the ships came to the top of the sea and began to roll toward the target. Firing on the "weather roll" it was called, and it was good practice in those days, because it insured the shot a chance to hit the target on ricochet if it missed it direct. Sometimes the target was struck, but generally it escaped.

With the advent of more modern guns and the up-to-date fighting machines of the navy the necessity to be able to shoot became more and more obvious. The inception came in 1896 and 1897 under Rear-Admiral Francis M. Bunce, then commanding the North Atlantic Squadron. To the system instituted by him must be attributed a large part of the success of our gunnery in the Spanish-American War. The general adoption of smokeless powder has necessitated the resighting of all guns. The real work of perfecting details and of efficient training in methods and practice has been accomplished since that time.

In March, 1902, Rear-Admiral Evans was ordered to China in command of the *Kentucky*. This gave him the opportunity he had long been waiting for. He at once set about interesting the personnel of his command, installing devices which would insure opportunity for regular and frequent practice, and to study thoroughly the mechanism needed to accomplish results.

The first difficulty came in the selection of a target which would not be destroyed by a few shots, but would allow of continuous practice. This was accomplished finally by mounting a paper drawing of some object on the end of a spar.

One end was so secured that the outer end could move freely up and down and, at the same time, sideways. To impart these motions suitable pulleys were connected with the spar. Then on the outer end was placed the target and behind this a suitable box to catch the bullets after they had passed through the paper. For want of a better name we called this the "ping-pong machine," and it bears that name in the service to-day. Flobert rifles were bought with a plentiful supply of ammunition. These small rifles were fixed to the turret and broad-side guns in such a way that the training of the smaller guns trained the larger ones at the same time and in the same way.

The results of this drill at once became apparent when regular target practice was resumed. One of the six-inch guns made

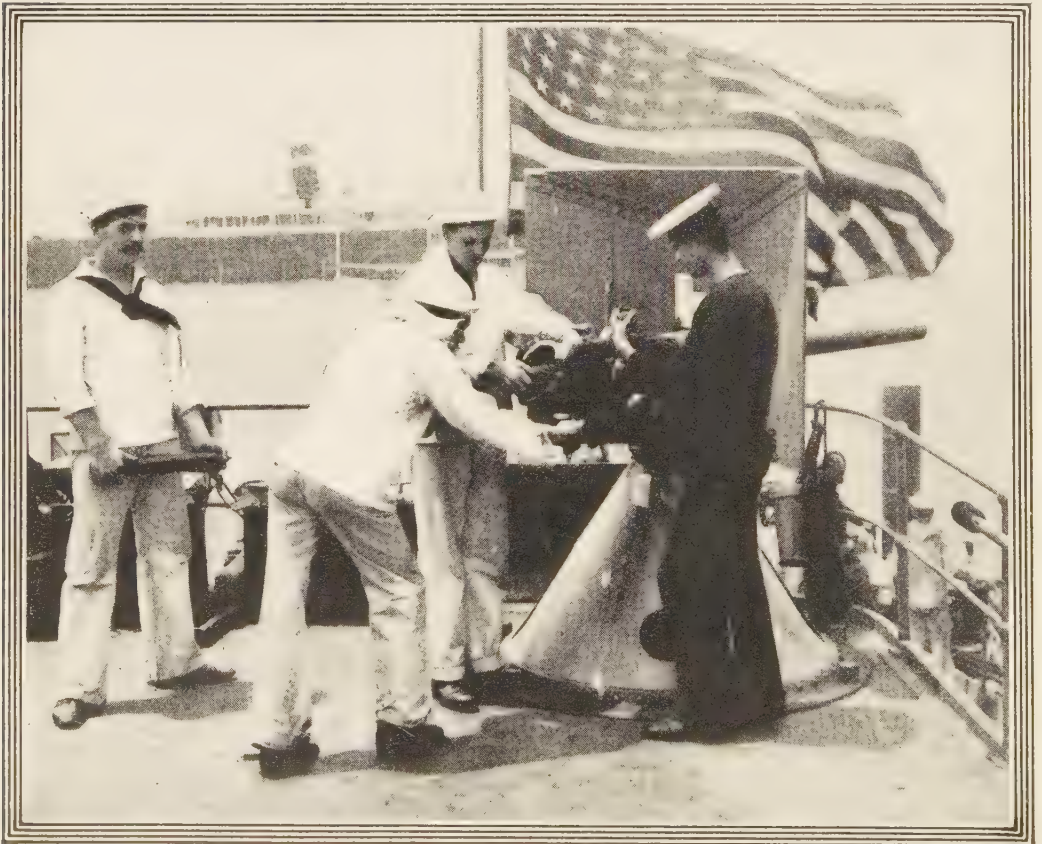
fifteen consecutive hits, the first one of which knocked the bull's-eye out of the target. But here a new problem presented itself; the sights on nearly all the guns proved practically worthless. On the *New Orleans* firing of the turret guns had to be stopped, for the sights were so faulty that they jarred out of adjustment with each discharge. Fortunately the personnel of the fleet supplied the necessary mechanical skill and technical ability. Old sights were readjusted and made stronger.

On the *Kentucky* Lieutenant McLean had fitted a new sight to one of her five-inch guns which carried a low power telescope with rather coarse cross wires. During the first day's firing the gun with the McLean sight made seven hits in one minute, and they were all bunched in a small space. The field of the telescope was small and the cross wires coarse, which made the firing slow, but it was evident that the gun could keep on hitting for any length of time. In view of the good results obtained I sent to Paris and ordered telescopes of high power and finer cross wires for all guns.

When the turret guns of the *Kentucky* were first fired the sights behaved so badly that I ordered the firing to stop. The principle under which they were constructed was wrong, and no amount of patching could do them any good. Something entirely new had to be devised, and fortunately for me and for the service I found the man who could do the necessary work. Assistant Paymaster William A. Merritt was the man. Mr. Merritt was an educated mechanical engineer. When the Spanish-American War broke out he felt it his duty to go to the front and succeeded in securing an appointment in the pay corps of the navy. Seeing the trouble with the turret gun sights he volunteered to work on something to take their place, and after weeks of the most exacting labor produced the drawings of a design for sights, which . . . was ordered to be fitted to all turret guns. When the sights were tested on board the *Kentucky* excellent results were obtained.

The newly established trophy for excellence in gun practice was won by the battleship *Oregon* in 1903 and remained in the China Station two years, when it came to the North Atlantic Squadron, which I had the honor to command then.

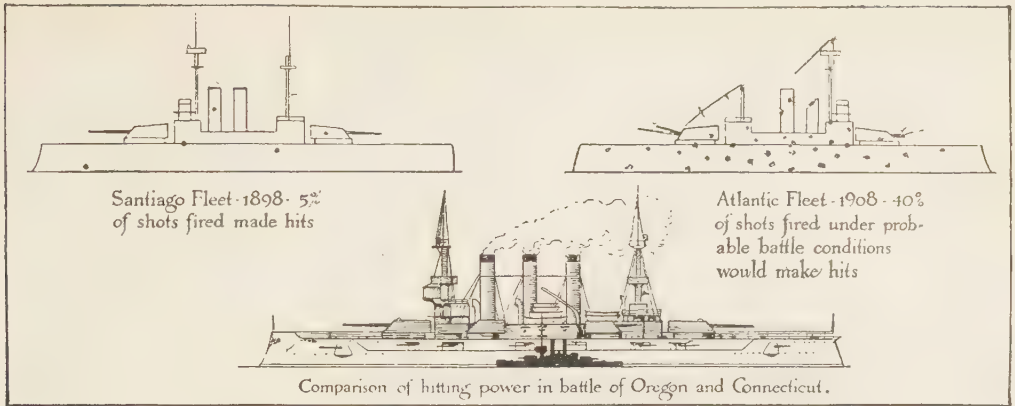
Exactly what percentage of increase of



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TWENTY TRUE SHOTS A MINUTE.

(United States naval gunners handling a rapid-fire deck gun.)



TEN YEARS' PROGRESS IN AMERICAN MARKSMANSHIP.

efficiency may be accepted as the result of the efforts of Rear-Admiral Evans and other officers and men of the navy the editors of his article endeavor to set forth in an editorial comment.

It has been estimated that in the battle of Santiago "probably 5 per cent. of our shells struck the enemy."

When engaged in target practice, at ranges twice as great as those that prevailed at Santiago, our gunners last year averaged 60 per cent. of hits throughout the fleet, while one ship made a score of 80 per cent. In actual battle it is reasonable to assume that 40 instead of

60 per cent. would represent the hits made by our gunners.

Not only this, but the rapidity of fire has increased about fivefold, while smokeless powder has added greatly to the velocity of the projectile, and energy increases as the square of the velocity.

The *Oregon* during five minutes of an engagement was capable of firing at the enemy 15,800 pounds of metal. . . . In the same time the *Connecticut* can deliver 89,200 pounds. But "it is the hits that count," and of the 15,800 pounds only 5 per cent., or 790 pounds, would reach the enemy. Of the 89,200 pounds, 40 per cent., or 35,680 pounds, would strike home.

PRINCE ITO AND KOREA.

PRINCE ITO'S resignation as resident-general in Korea marks an epoch in the history of the Japanese control of the peninsula. When some three years ago the Prince was offered the post of first resident-general he was reluctant to accept it, having been conscious that, owing to his advanced age, he might not be able to hold the office for any length of time. But the veteran statesman was, as the *Jiji* observes, prevailed upon to comply with the earnest request of the ministry upon the condition that he would remain in Korea only until the Japanese protectorate should have been placed upon a fairly working basis. Continuing, this Tokyo journal says:

Once in the new post Prince Ito found things in a state of indescribable confusion, especially with regard to Korea's relations with France and Russia. But under his experienced management many a knotty problem has been successfully disposed of, until to-day Korean ad-

ministration has entered upon a new stage wherein the internal reform of the country can be carried on without interruption or interference from outside. In short, Prince Ito has finished the work he was intrusted with, and the time has come for him to recommend a successor.

An article on Prince Ito and his Korean work, appearing in the June issue of the Tokyo monthly *Taiyo*, contains many noteworthy observations. For one thing the writer contends that Prince Ito, and indeed all the "elder statesmen," are too sensitive to foreign criticisms. To him there is but one course open for Japan with regard to the Korean question, and that course is the fusion of the two nations into one state. Not only the march of recent events but the geographical configuration and historical relationship between the Hermit Kingdom and the Mikado's Empire justify, according to this essayist, Japan's taking this inevitable



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PRINCE ITO, WHO HAS RECENTLY RESIGNED AS JAPAN'S
RESIDENT-GENERAL IN KOREA.

course, and no Western power in Japan's position would have hesitated to resort to more vigorous measures than have been employed by the insular nation. But the canon of the elder statesmen is: "Do not hurt the feeling of Western powers," and in their efforts to avoid unsympathetic criticisms from foreign nations they have retarded the solution of the Korean problem.

It has popularly been said that Prince Ito himself was the initiator of the existing régime in Korea. But upon a high authority I am inclined to believe that the idea of placing Korea under a resident-general was suggested by a third power which had been intimate with Japan. But for this suggestion the elder statesmen would have hesitated to act as they did. Even after Japan decided to establish a protectorate

over the peninsula her steps have been necessarily cautious, and the fundamental questions relating to the status of Korea still remain unsettled. Such diffidence and cautiousness is almost foreign to the spirit of Young Japan, animated with high aspirations and determined to attain them in spite of all difficulties. In managing a people like Korea, to which subterfuge and chicanery have become almost innate, it is imperative that all the important problems affecting its relation with its suzerain state should be promptly and decisively settled. Viewed in this light Prince Ito's Korean administration has been successful only in leading us a step toward the ultimate settlement of the difficult problem.

Both ethnological and philological inquiries, the writer asserts, lead to the conclusion that the Japanese and Koreans descended from one and the same stock, and there is no reason why the two nations should not unite in one state. Without Japan's protection Korea cannot exist, and, with Korea passing into the hands of a third power, Japan's existence would be imperiled. It is, therefore, Japan's duty to make the utmost endeavor to promote the welfare of

the Korean people, while it is incumbent upon Korea to discard her time-honored policy of subterfuge and double dealing and take Japan into confidence.

It may be noted that the resigned resident-general has been appointed President of the Privy Council. Viscount Sone, who was vice-resident-general under Prince Ito, has been promoted to the resident-generalship.

Prince Ito inevitably seems to stand for the spirit of the Japanese people as a governing unit. His name first became known to the Western world in connection with the Chinese-Japanese war of 1895. Since then he has been the best known and most highly considered of Japanese statesmen in the eyes of Occidental peoples.

HARBIN: RUSSIA'S UNCOMPLETED MANCHURIAN METROPOLIS.

THREE hundred and fifty miles west of Vladivostok and six hundred miles north of Dalny, in the geographical center of Manchuria, stands the twelve-year-old city of Harbin, planned by Russia to become "the Moscow of Asia, the Minneapolis of the Far East, and the Chicago of the Orient." A visitor to the town desirous of reporting on its condition to-day would have to describe it in some such terms as these:

Grass grows in the streets; no smoke issues from the tall chimneys of the mills. The large and costly stocked department stores open for the day and only a casual customer appears. Theaters have closed. Only one or two *cafés chantants* invite the midnight pleasure seeker, in place of the previous twenty-six. The houses are out of repair and the plaster ornamentation of many of the large buildings has fallen away, disclosing the naked lath, revealing the fact that the buildings in part were only imitation stone. The town is existing on the expenditure of the railway. The salaries of the employees maintain the few stores. . . . The last financial year of the bank was closed without the payment of the customary dividend. The railway is losing at the rate of 5,000,000 roubles per annum.

Yet less than five years ago, in the early period of the Russo-Japanese war, everything was booming in this selfsame city.

The immense armies of the Czar, transported across Siberia, came to a halt at Harbin and were here encamped and forwarded on to the front as their time came. Here was the real military headquarters. . . . Here the officers left their families, some wives, some mistresses; and here the camp follower halted and went no further; here the gamblers and sharpers plucked the easy-going and good-natured soldier, and the commercial adventurer divided the loot with the mercenary official. To Harbin swarmed the women, who made it their abode, bringing with them the luxuries of Paris and the life and atmosphere of the boulevards. Theaters multiplied, *cafés chantants* were in full blast, drinking saloons and pleasure resorts abounded. No less than twenty-six music-halls catered to the pleasures of the soldiers, running day and night without pause. The pace was swift, life was short, and extravagance and recklessness the order of the day. Champagne flowed like water. Magnums took the place of the ordinary pint or quart bottles. They cost more and the money would go quicker. . . . Houses were at a premium, and fortunes were made in real estate and building transactions. Chinese and Jewish money-lenders flourished, jewelry dealers were reaping a glorious harvest, and fashionable dry-goods stores carrying the latest and most expensive stocks of feminine wear did a thriving trade.

Breweries, four of them, were hastily erected; eight vodka distilleries were placed in operation . . . and other industries were rapidly financed and carried through. Profits were enormous. . . . Everything was lovely, and as long as the boom lasted no one cared to look ahead.

The narrative of Harbin's rise and decay, from the pen of George Bronson Rea, in the *Far Eastern Review* (Manila), from which the foregoing excerpts are taken, reads like the story of some American mushroom mining town. But this remark applies to the rapidity of growth only. In Harbin "Russia has shown the world how to design and create a city, overnight as it were, to further her political designs and expand her influence in the Orient." Mr. Rea characterizes it as "one of the greatest achievements in city construction witnessed by the world." In September, 1896, the Chinese Government and the Russo-Chinese Bank concluded an agreement for the construction and management of the Chinese Eastern Railway, which was to connect the Pacific littoral with the great Trans-Siberian Railway through Chinese territory in northern Manchuria. In the following spring the work was begun, and the same year the city of Harbin was founded. It was to be not only the headquarters of the new enterprise but also "the strategic center of Russia's new empire, and but for the unexpected war with Japan her purpose would have been crowned with success." Harbin, as it stands to-day, "is a purely Russian product laid out by the railway engineers." The original old town is three miles distant from the present railway depot. Pristan, the commercial town, is "on the side of the railway bordering on the river." The official city or district, "where all the public buildings, offices, hotels, etc., are located, is in close proximity to the railway station." The purely Chinese town, the headquarters of the governor, is known as Fu-tu-tien, and is about four miles from the official district.

Here, at Harbin, it was that Russia planned her Asiatic metropolis; and "every inducement was held out to the confiding Russian capitalists to purchase lots and to cast their fortunes in with the new venture."

Wide streets were laid out and paved, electric lights installed; fine, large official buildings, railway clubs, hotels, and schools were



BUSINESS BUILDINGS IN "RIVER TOWN," HARBIN.

erected, immense car and machine shops equipped. . . . The town rapidly outgrew its original delimitations, and further land was added to meet the expansion.

In the old town, land originally offered at a little over one cent gold a square foot soon "soared to over seventeen cents gold per square foot"; and "within a year from the time that this section was opened to the public it is estimated that over \$5,000,000 gold was expended in building operations." An industrial boom followed which at one time promised to make Harbin the "greatest manufacturing center in Asia." Saw-mills, mines, breweries, vodka factories, flour mills, and other large schemes were promoted. In 1904 ten flour mills were producing nearly 1,000,000 pounds a day. "Prosperity was in the air. Everybody seemed to have money, and it was spent like water. Easy come, easy go."

The new city was Russian to the core. "Foreigners were practically excluded or only permitted to remain on sufferance." Russia claimed under the agreement "exclusive and absolute administration of the railway lands." The Chinese held that this

clause was "not in the original Chinese version of the document." Harbin was "as distinctly a Russian city as though located on the Volga." Millions of rubles "went into official edifices." Millions more went into hospitals, schools, and fine residences for the commanding general and other high officials. A few more months and the dreams of empire would have been realized. But the Treaty of Portsmouth changed everything at Harbin. No determined effort had been made by the merchants to secure the native trade, and when the evacuation took place, and with it a return to normal times, there was no market.

The best customers for the flour mills, the breweries, and vodka factories were gone. . . . The theaters, bereft of their patrons, closed; the music-halls followed. . . . Houses that had been at a premium were vacated, new tenants came not, and decline in real estate value followed. The brick factories and saw-mills closed for lack of business. No one wanted to build. . . . The large official hotel was converted into the offices of the Russian Consulate General.

And thus an end has come to the Russian dreams of an Oriental Moscow.

As is generally known, Harbin was opened to the world as a treaty port; but fierce disputes have arisen in official circles as to which Harbin is thus designated. The Russians claim that the old Chinese town, administered by the Chinese Governor, is the one; but the Chinese hold that the new city is the treaty port, and the pretensions of the Chinese Eastern Railway to regulate the affairs of Harbin "have been strenuously opposed by the American consul, Mr. Fisher, and by the British and German consuls at Mukden." The at-

titude on both sides to the dispute is uncompromising. Russia and China will not give in on any point; and Japan sides with the former.

If Russia refuses to recede from her position, the question eventually arises, What then? China is too weak to forcibly assert her idea of right, and Russia's actions are justified by the original French text of the agreement. If this document is the true one, other powers cannot interfere, as Russia's action is in accordance with the rights surrendered by China, and does not, therefore, conflict with the open door policy.

A BEAUTY CONTEST IN SPAIN.



ROSA DE LA FIGUERA.

ROSA RODRIGO GÓMEZ.

ÁNGELES SOLER Y MIOUEL.

SUCCESSFUL COMPETITORS IN THE BEAUTY CONTEST AT VALENCIA.

(The first prize was awarded to Señorita Rosa de la Figuera y de la Cerda, whose portrait appears at the left.)

IT is difficult to realize, on reading the August number of the Spanish magazine *Hojas Selectas*, which is published in Barcelona, that since its pages were printed the streets of that city have run red with the blood of rebellious citizens. Not the slightest indication of the impending catastrophe is to be discerned in any of the contents of the magazine in question; on the contrary, in one article at least, that on the Exposition at Valencia, the spirit of loyalty to the sovereign is notably prominent. For example, the visit of the King, for the purpose of opening the Exposition, is referred to in the following terms:

On the twenty-second of May King Alfonso visited the beautiful city where flourish in equal luxuriance the flowers of the soil and the flow-

ers of genius, and he was received by the governor, who welcomed his Majesty in the name of the citizens. The King and his suite proceeded to the Cathedral amid the cheers of an enormous multitude, whose plaudits betokened the delight and enthusiasm evoked by the presence of the sovereign.

Besides the usual displays common to exhibitions of the kind the Valencia Exposition was characterized by two special features,—a battle of flowers and a beauty contest. The former was "an indescribable festivity, a magnificent review of art, wealth, good taste, and enthusiasm, superior in many respects to those of Nice"; while the beauty contest, "by reason of the interest it aroused," was "one of the most important events of the Exposition." Prizes were offered to the competitors who should secure the first six



SOLEDAD CRISTALLYS GÓMEZ.

INÉS SANCHÍS MAS.

JOAQUINA SAAVEDRA FONTES.

THREE OTHER SUCCESSFUL CONTESTANTS IN THE SPANISH BEAUTY CONTEST AT VALENCIA.

places in a popular vote; and from these six by a further plebiscite the "Queen of Beauty" was to be chosen. Valencia is world-famous for its beautiful women, and on this account the greatest curiosity was aroused as to the result of the contest, which seems to have been arranged on a thoroughly democratic basis, for we read:

In order the better to insure equality in the awards the prizes were offered to competitors from the aristocracy, the middle class, and the populace, since, like goodness and talent,—those precious gifts of heaven,—beauty in its bestowal is not confined to any one class.

Readers of the REVIEW will, we think, be interested in seeing the types of beauty most in favor with the Spaniards themselves. The accompanying illustrations represent the six successful competitors in the first popular vote; but, as the *Hojas Selectas* pertinently remarks, "it is impossible to give an exact idea of the originals, with the differences of hair, eyes, mouth, and complexion which form the distinctive characterizations of the several beauties." The six beauties whose portraits are here reproduced are thus briefly described by the Spanish writer:

Rosa de la Figuera y de la Cerda is the sister of the Marquis of Ffrente el Sol. Sixteen years old, and about to leave college, her complexion has the resplendent freshness of the rose. With black and wavy hair, teeth somewhat small and white as grains of rice, eyes large and black, her face is a perfect oval and mouth of admirable design.

Joaquina Saavedra Fontes, daughter of the Count de la Alcudia, is a swarthy beauty who,

recalls the type of the Galatea of the Valencian poet.

Angeles Soler, of the middle class, is admired for her "timid candor" of countenance, which sets admirably in her white dress embroidered with gold.

Inés Sanchís is the type of the beauties of the orchard. Since the "quality" of the soil has ascended the throne of beauty many have sought her hut shaded by orange-trees.

Soledad Cristallys Gómez, daughter of a surveyor of customs, combines grace with beauty, and captivates masculine hearts with the sweet and serene glances of her eyes, which shine like suns in a heaven of snow.

Rosa Rodrigo Gómez is a Hellenic beauty of most correct features and with splendid black hair.

As mentioned above, from these six beauties the final selection of the Queen of Beauty was to be made. To the successful competitor a prize of 5000 pesetas (\$1000) was offered, and to the second and third contestants prizes of 3000 and 2000 pesetas respectively were to be awarded. Public opinion was much divided as to the probable result of the final plebiscite:

Popular favor inclined to the elegant *huerfana*; political partisans bestirred themselves to secure the election of the "Republicana," Angeles Soler, who is the daughter of a prominent Republican; while the aristocrats left no stone unturned to elect one of the competitors in whose veins "blue blood" circulated.

Esthetic taste, however, prevailed, and without prejudice "the universal suffrage declared, by a large majority of votes, in favor of the Señorita Rosa de la Figuera y de la Cerda."

JANE LATHROP STANFORD: MOTHER OF A UNIVERSITY.

“ONE of the bravest, wisest, most patient, most courageous, and most devout of all the women who have ever lived,” are the terms in which President David Starr Jordan of Stanford refers to “the lone, sad figure of the mother of the university, strong in her trust in God and in her loyalty to her husband’s purposes, happy only in the belief that in carrying out her husband’s plans for training the youth of California in virtue and usefulness she was acting the part to which she was assigned.” They occur in a Founder’s Day address delivered at Stanford University by Dr. Jordan and published in the *Popular Science Monthly*. Few persons on reading that address will be disposed to say that the eulogy is one whit too pronounced.

Leland Stanford, Junior, University, founded by Governor Stanford in memory of his son, his only child, whose name it bears, was opened “on the first day of October, 1891, a clear, bright, golden California day, . . . full of good omen.” . . . During the first two years of its history, says Dr. Jordan, “it was the hopeful experiment of Leland Stanford. The next six years its story was that of the heart throbs of Jane Lathrop Stanford.” During those six dark years “the future of a university hung by a single thread, but that thread the greatest thing in the world, the love of a good woman.” Dr. Jordan had been asked by Governor Stanford to take charge of the new institution; and he thus describes his first meeting with the founder and Mrs. Stanford:

He told me the story of their son, of their buried hopes, of their days and nights of sorrow, and of how he had once awakened from a troubled night with these words on his lips: “The children of California shall be my children.” . . . No cost was to be spared, no pains to be avoided, in bringing this university to the highest possible effectiveness.

Mr. Stanford explained that thus far only buildings and land had been given, but that practically the whole of the common estate would go in time to the university, when the founders had passed away. If he should himself survive, the gift would be his and hers jointly, though the final giving would be left to him. If the wife should survive, the property would be hers, and in her hands would lie the final joy of giving. Mr. Stanford gave his reason for not turning over the property at once, for this might leave his wife no controlling part



THE LATE MRS. JANE L. STANFORD.

in the future. It was not his wish that she should sit idly by while others should create the university. So long as she lived it was his wish that the building of the university should be her work.

This attitude of chivalry in all this needs this word of explanation, for it shaped the whole future history of the university endowment. It was the source of some of the embarrassments which followed, and perhaps as well of the final success.

On June 22, 1893, Mr. Stanford died suddenly, and thereupon the estate fell into the hands of the courts.

The will was in probate, the debts of the estate had to be paid, the various ramifications of business had to be disentangled, and meanwhile came on the fierce panic of 1893. All university matters stopped for the summer. Salaries could not be paid until it was found out by the courts by whom and to whom salaries were due. All incomes from business ceased. There was no such thing as income visible to any one, least of all to the great corporations.

Beyond her jewels, Mrs. Stanford “had practically nothing of her own save the com-

munity estate, and this could not be hers until the payment of all debts and legacies had been completed. These amounted as a whole to eight millions of dollars." Most women would have closed the university until the estate was settled, its debts paid, and the panic over. Mrs. Stanford decided otherwise. President Jordan was told to go ahead with the university, and that whatever money could be got should be handed over to him. The task was not an easy one. As there was no regular income, the payment of salaries was necessarily most irregular. President Jordan relates an incident showing most vividly what the conditions at the university were at this juncture:

At one time in August, 1893, Mrs. Stanford received from Judge Coffey's court the sum of \$500 to be paid to her household servants. It was paid in a bag of twenty-five \$20 gold pieces. Mrs. Stanford called me in and said her household servants could wait; there might be some professors in need, and I might divide the money among them. I put the money under my pillow, and did not sleep that night. Money was no common thing with us then. Next morning, on Sunday, I set out to give ten professors \$50 apiece. I found not one who could give change for a \$20 gold piece, and so I made it \$40 and \$60.

For six years "the professors were paid by personal checks of the president," and the period was one of incessant struggle. At last there was a "glimpse of daylight," but this was succeeded by "still darker night." The United States Government brought suit against the estate "for the purpose of tying up everything in it until the debts of the Central Pacific Railway were paid." After two appeals by the Government, the case was finally won by Mrs. Stanford, "and

once for all and forever the future of the university was assured."

This was the end of the dark days, but not of the days that were difficult. There were still \$8,000,000 to be paid. There was still the uncertainty as to whether Mrs. Stanford could survive to pay it, and the estate must come into her hands before she could give it to the university. She made many attempts to facilitate this transfer. At one time we have the pathetic figure of the good woman going to the Queen's Jubilee in London with all her own possessions, half a million dollars' worth of jewels, in a suit case carried in her hand. She hoped to sell these to advantage when all the world was gathered in London. But the market was not good, and three-fourths of them she brought back to California again.

Mrs. Stanford died suddenly at Honolulu on February 28, 1905. In accordance with her written wish, her jewels were sold and a fund, known as the "Jewel Fund," \$500,000, was established for the maintenance of a library and the purchase of books and other publications.

President Jordan quotes from several of Mrs. Stanford's letters showing how sacred a trust she considered the university to be. From these the following extracts are culled:

Every dollar I can rightfully call mine is sacredly laid on the altar of my love for the university, and thus it shall ever be. . . . I am so poor myself that I cannot this year give to any charity; not even do I give this festive season to any of my family. . . . I am only anxious to furnish you the funds to pay the needs required. I could live on bread and water to do this. . . . I could lay down my life for the university. Not for any pride in its perpetuating the names of our dear son and ourselves, its founders, but for the sincere hope I cherish in its sending forth to the world grand men and women who will aid in developing the best there is to be found in human nature.

DICTIONARY MADE AND PRINTED BY ONE MAN.

IT is unusual, to say the least, for a lexicographer to be his own illustrator, printer, and stereotyper. This, however, has been the experience of Mr. Ewan MacDonald, whose work, a completely new Gaelic dictionary, is described by Mr. Tighe Hopkins in the *World's Work* (London) for August as "in sundry ways a unique achievement, intellectual and mechanical," and, considered as the doing of one man, "not less than astonishing." Astonishing it certainly is; for it is "the performance of a man self-taught throughout, as scholar, compiler, draughtsman, and printer." Mr. MacDonald

was to have been an engineer, and to this end he studied at King's College, London, where also he "worked at the forge, the lathe, and in the foundry."

The fates of his youth, however, directed him to the stool of a clerk, and he followed his grandfather, father, and uncle in the well-known firm of army agents, Cox & Co. While in this service he took to volunteering, and, after serving some months in the Queen's Westminster, joined the famous London Scottish, where he first learned to finger the chanter of the bagpipes. Here, also, starts his interest in Gaelic. But the speakers of Gaelic were not many in the London Scottish, and MacDonald's prog-

ress in that hard idiom was slow.

It was in the tents of certain volunteer regiments in Scotland that he first heard Gaelic spoken as a Gael speaks it, and he soon made up his mind to master the language compared with which Greek is nowadays far easier of acquisition. After ten years of service as a clerk he gave up his position, went to Scotland, and, becoming proficient in the bagpipes, attended weddings and other celebrations, chiefly in the Western Isles, where Gaelic was commonly spoken.

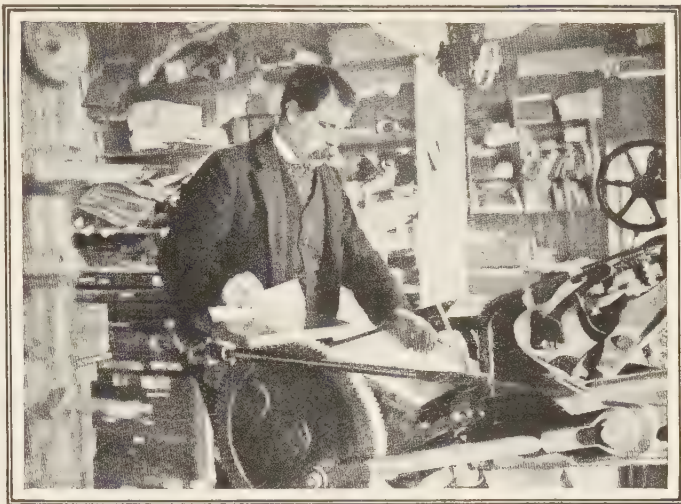
It took Mr. MacDonald ten years to acquire "the full and easy power" over Gaelic which "he wields to-day." In the meantime he had decided that a new dictionary was necessary, and "single-handed he set out to make one."

This vast compilation . . . will contain from 950 to 1000 closely printed pages, 90,000 words more or less, and from 800 to 900 illustrations. Every word of it has been written out by the compiler himself, who has handled some 20,000 slips of manuscript; he has drawn all but a small number of the pictures (knowing nothing of draughtsmanship when he commenced the task), and every syllable of the type is his own setting. Setting and correcting the type alone would probably mean about ten hours' labor to the page; and, as has been said, the pages will approach the thousand.

Mr. MacDonald overhauled the few Gaelic lexicons that had been published, arranged with Gaelic scholars throughout Europe for the revision of his manuscript, bought a handbook on printing and a second-hand press, and in due time set the type himself, and even did his own stereotyping. Usually his working day was one of twelve hours, and at certain seasons it was extended to sixteen hours.

Mr. Hopkins recounts some of the difficulties of advertising that this enterprising author-publisher has met with:

In the ordinary course of business a work of this quality and magnitude is extensively advertised in newspapers and magazines, the editor or publisher is interviewed, paragraphs are scattered here and there, and circulars are issued broadcast to possible subscribers. The maker of the Gaelic Dictionary, an unknown amateur, incessantly striving against odds of all sorts, knew



MR. MAC DONALD PRINTING HIS GAELIC DICTIONARY.

little of the ways of reaching the public he aimed at, and had next to nothing to spend upon advertisement. A simple broadsheet or so, a few specimen pages of the lexicon: these were his best devices, and the postage of these was an item to be very seriously considered.

To bring in "a little sorely needed grist" Mr. MacDonald has issued pocket books in Gaelic, as well as Christmas and New Year's cards; but one reads with regret that "the dictionary is not selling at a profit" and that Mr. MacDonald "has been selling his cherished store of Gaelic books,—the accumulations of thirty years,—to help him forward with the undertaking of his life." For thirteen years he has been helped in the work by Mrs. MacDonald, who "has spoken Gaelic since she spoke anything." The dictionary is to be issued to the subscribers in two or in three volumes, as they choose; and the Gaelic Society of London, besides numerous students of Gaelic throughout the world, including Sir John Rhys, Professor of Celtic at Oxford, and Dr. Zimmer, Professor of Celtic Philology at Berlin, have given it hearty indorsement.

The successive installments of the work are going to Australia, New Zealand, Natal, Central Africa, Egypt, Honolulu, Tahite, Canada, the United States, Ireland, France, Germany, and Bulgaria.

It is impossible to read the story of Mr. MacDonald's triumphs over apparently insuperable obstacles without feeling that there ought to be some means of bringing him within the scope of the operations of the Carnegie Hero Fund.

WHY AMERICANS ARE UNDER-LANGUAGED.

UNDER this caption Mr. Charles C. Ayer in the August *Forum* presents a few wholesome truths to his fellow countrymen. He starts off by positing "inability, indifference, or whatever it may be, on the part of the American toward foreign languages." One reason for this is:

The upper-class Americans feel no incentive to learn to speak the modern European languages when at home in the United States, since they have little opportunity to speak them with persons whom they can regard as their equals socially or intellectually. . . . The upper-class European seldom comes to America, and when he does come the chances are . . . that he will be able to speak English better than any but a very few Americans would be able to reply to him in his native tongue.

When Americans travel abroad there is little opportunity to practice their French or German, for they "usually travel with friends or relatives, and English is the language of the trip." Should they meet cultivated Europeans, the latter "can often converse in English satisfactorily." Thus the average American traveling abroad on a summer trip does not suffer seriously from being "under-languaged." Mr. Ayer thinks that of Americans living abroad very few speak the language of the country or even pretend to speak it creditably. He says:

"When we read in the society column that 'Mrs. So-and-So and daughters have returned from a three years' residence abroad in Berlin, Paris, and Rome,' we can feel pretty certain that they have not worried much over German, French, and Italian, but have enjoyed life to the full in the agreeable American colonies of the cities in which they have lived, where English is, of course, the vernacular. . . . Most Americans abroad see no society excepting that to be found in the American colony. This is not because European society is necessarily exclusive, but because the average American, it would seem, is indifferent to Continental society, to say the least, while the strictly fashionable American seems to be seriously interested only in English society.

The reasons for this are not far to seek. There is "no barrier of language in England as there is on the Continent. Secondly, the English at the present time lead the world socially."

The London season is the most brilliant social epoch to be found on the face of the globe, and, happily for us, English is the language spoken. English the social language par excellence. Why spend time and labor in learning French and German when for our immediate purpose they will be of no use?

Turning to the commercial side of the question, Mr. Ayer says "it is easy to see why our business men are 'under-languaged' as compared with the hotel keepers in Switzerland and the milliners of the Rue de la Paix. It is merely a matter of business." As thousands of the immigrants arriving in America bring no money to spend, "our merchants do not need to go to the trouble of learning their languages in order to do business with them." On the other hand, many of the Americans who go to Europe every year have, to speak colloquially, "money to burn."

But, though social and commercial reasons may be the chief ones for our indifference to foreign tongues, there is, in Mr. Ayer's opinion, another reason why "we are not ambitious to speak foreign languages well." It is that "we do not look upon our own language as a thing sacred."

We are notorious for our slovenly speech. Indeed, an American wishing to teach English abroad would do well not to mention his origin. Our lack of interest in spoken English is unfortunate. Of course it is only lack of interest. Most of us know right from wrong, at least we say that we do, but have not the time to take pains. This attitude is an interesting one in that it is so different from that of the Germans, the French, and even the English, who take such a keen pride in their language that they would be ashamed not to speak it well. Good speech with them is a requisite in good society. It is, in other words, good form. Not so with us, though we are punctilious in some kinds of good form. We dress well, entertain handsomely at dinner, have automobiles, give box parties, etc., as if they were all that constituted good form. But our speech we neglect. In the United States, in spite of the agitation over the teaching of English in the schools, the matter of spoken English is sadly neglected. By many Americans a person who pronounces well, uses good language, and is interested in discussing the niceties of speech is regarded as a prig and a bore. Bad English is heard in college classes, bad English which often is allowed pass unchallenged, because a professor is embarrassed to correct a senior. School teachers and even college professors often treat their language as they would an outing suit. . . . A person who does not use his own language well will never go very far in a foreign tongue.

With the Germans, the ability to speak English is regarded as "an accomplishment that they cannot afford to neglect." They desire to speak English well, "just as they wish to possess the other accomplishments. In other words, it is good form to speak English."

The Americanization of immigrants will have its effects on the future of the Continental languages in the United States.

Children born of foreign parents in America, though they may understand the language of their ancestors, seldom speak it purely. They do not wish to speak it. They are ashamed of their German, Italian, or Scandinavian origin; they are proud to be Americans. Many economists see in this attitude one of the most hope-

ful assurances of the ultimate power and prosperity of the United States as a homogeneous nation. This is doubtless so, but it is bad for modern languages.

The living, spoken language, says Mr. Ayer, "is scarcely heard in the classroom"; and it is only too true "that many of our American-born language teachers are unable to speak the languages they teach."

FRANCE AND ANGLO-GERMAN RIVALRY.

AS long ago as 1907 a German writer (Counselor Rudolf Martin, in his book, "Kaiser Wilhelm II. und König Edward VII.") declared that "the imperialist and resolutely anti-German policy of King Edward VII. will not long be tolerated. This policy will be modified before the imminence of a war with Germany, or after the first results of such a war: the crushing of France and the annexation of Belgium and of Holland. If not, we shall descend on England."

This proposition of an aggressive nationalism is the formula of a military doctrine with which the Germans have become obsessed; and since with each fresh tension between England and Germany the drawing of France into the conflict seems to have become a fixed idea of the imperial policy, men of affairs in the last-named country are asking why this should be so. M. Albert Touchard, in the *Correspondant*, of Paris, attempts to answer the question and to show that the "crushing of France and the annexation of the Netherlands is a necessary prelude to any decisive operation of Germany against England; that this necessity exists in fact, and that it is the result of causes more profound than the theory of hostage, put forth by Professor Schiemann, and more permanent than the 'entente cordiale.'" He says:

Among the economic causes of Anglo-German antagonism three main facts should be borne in mind in studying the subject: The economic expansion of Germany is detrimental to England; this expansion is a matter not solely of prosperity, but of necessity; and it is at the mercy of the power that is mistress of the seas.

In support of these facts the following figures are submitted:

In fifteen years, from 1892 to 1907, the annual external commerce of Germany increased 132 per cent., that of England 60 per cent. only; the value of the German mercantile navy advanced

from \$65,400,000 in the year 1895 to \$162,000,000 in 1905; while her steamboat fleet has tripled in ten years. . . . To this extent England has been injured as "carrier of the seas."

At first these figures appear eminently satisfactory from a German point of view; but a closer analysis shows that year by year the excess of Germany's imports over her exports increases, the difference in 1907 being \$440,000,000. These imports are necessary to her very existence; to pay for them she must at all costs increase her exports, and this she has hitherto been unable to do. This, says the *Correspondant* writer, indicates the true character of her expansion: her necessity, while an irresistible power, is also a danger; for that which creates the wealth of the empire creates at the same time her source of weakness. Her political vulnerability increases in proportion to her economic vulnerability; and her external commerce, a commerce essentially maritime, would be in the highest degree vulnerable in a naval war.

In discussing the probable incidents of a war between England and Germany M. Touchard gives a careful analysis of the fleets of the two countries and describes the conditions under which a German invasion of England is conceivable. He directs attention to the weak points on the eastern coast of Britain, and he also considers the possibility of a blockade by England of the ports of Germany. The involving of France in the conflict would, by reason of an Anglo-French alliance, admit the possibility of the debarkation of an English army at Calais. On the part of Germany, it is doubtful whether the territorial integrity of Belgium, Holland, and Denmark would be respected. With reference to the attitude of France in presence of an Anglo-German conflict M. Touchard observes:

In this Europe in arms, where the state of

equilibrium is no longer peace, nor even armed peace, but the hope or expectation of war, in presence of a growing antagonism, it is necessary for us to choose between British imperialism and German imperialism. The adversaries are worthy of one another, and their chances are equal. Whoever has visited the industrial cities of the Rhine basin, the enormous entrepôts of the North Sea, must have carried away a troubled impression of prodigious, exuberant wealth, of strength at once inquiet and overwhelming, of a rude Germany thrusting aside all obstacles from its path. . . . But not less striking and more precise is the impression of strength,—well-ordered, tranquil, and sure of itself,—imposed by a consideration of English conditions.

Between these two adversaries France cannot remain neutral.

Not being for Germany, we are necessarily against her, independently of all the *ententes* and all the alliances; for it is not solely the military prowess of England that she would lay low, but, above all, she seeks to destroy the guarantee of Belgian neutrality. And it is this which expresses the Sibylline proposition of which we now hold the key: "The defeat of France puts England at our mercy. . . ." Should the day come when England must answer this question of life and death,—arrest-

ing that expansion which Germany must maintain at all cost in order to subsist,—she may destroy the navy of her rival, paralyze her merchant marine, blockade her coasts, annihilate her external commerce, and inflict a dangerous, if not mortal, wound, and Germany will be unable to oppose anything decisive against her British adversary; for the actual disproportion between the naval forces of the two nations England will continue to maintain.

What Germany needs, in order to be able to strike her enemy, is "to eliminate almost completely the element 'sea' from her strategic operations, and to throw into the balance integrally her formidable military power. She needs, to this end . . . the Batavian littoral, Belgian ports, Antwerp."

Above all, Antwerp, with its impregnable entrenched camp, the strongest in Europe, its immense and secure harbor, the mouths of the Scheldt plunging their menace as far as the estuary of the Thames; Antwerp, "the pistol leveled at the heart of England."

M. Touchard laconically adds: "There is but one road from Berlin to Antwerp, and this road runs through Paris."

THE UNITED STATES AND PAN-AMERICANISM— A FRENCH VIEW.

THE fourth Pan-American Congress is to be held next year at Buenos Aires, where it will coincide with the fêtes which the Argentine Republic proposes to hold in celebration of the centenary of the revolution which resulted in the emancipation of South America. Apropos of this congress M. Vialate, in the *Revue des Deux Mondes*, presents a French view of the policy of the United States Government toward the republics of the southern continent. Referring to J. G. Blaine (whom he describes as "brilliant and original, ambitious, and confident in the destinies of his country") as "the champion of a Pan-American policy," he gives an account of the first "International American Conference," at which Blaine presided, and which opened at Washington on October 2, 1889; deals with the events following the war with Spain, the occupation of Cuba, and the annexation of Porto Rico, Hawaii, and the Philippines, "which placed the United States in a delicate position with regard to the Latin-American nations, by whom American Imperialism (*l'imperialisme yankee*) was coolly received"; and narrates

the efforts of President McKinley in connection with the second conference, which, "after sufficiently serious difficulties," convened at Mexico City on October 22, 1901.

According to this French writer "the South American governments were not enthusiastic over the second conference, and public opinion was generally hostile to it. In the United States it was regarded with indifference," for "attention was being concentrated on markets for exports, and these were not sought in the New World but in the Far East." Expectations ran high:

Trade with China and Japan seemed to the Americans to promise an inexhaustible source of profit. The farmers of the West dreamed of substituting among these peoples the use of wheat for that of rice. The manufacturers of the Eastern States saw in these Oriental markets marvelous outlets for their exports for an indefinite period. The Panama Canal would counterbalance the advantages which that of Suez gave to their European competitors. . . . The acquisition of the Philippines added to these hopes. There Americans saw a fruitful field of activity, and Manila was to be a future seat of a commercial emporium in these distant seas: its importance would soon exceed that of Hongkong. . . . Statistics seemed to prove

that in these anticipations there was nothing chimerical.

But these desires for commercial expansion were hindered by unexpected obstacles. Though American exports to Japan and China had in 1905 attained respectively \$52,000,000 and \$56,000,000, these figures were really not so satisfactory as they appeared on the surface. For example, three-fifths of the exports to Japan were composed of alimentary products, petroleum, and raw materials, and the greater part of the manufactured products were machines destined for use in the growing factories and foundries of the Japanese. The empire of the Mikado was itself ambitious to become a great industrial power. Then there was the Chinese boycott, which showed that "the citizens of the flowery kingdom possessed efficacious means of retaliation." As regards the Philippines, American capitalists were backward in investing; for it was found that "the islands, ruined by the maladministration of the Spaniard, did not offer the rich market that had been anticipated." The spell which the Orient had exercised on the American commercial mind was broken; and "manufacturers and others asked themselves whether it would not be wise to seek other markets. Naturally their thoughts turned to Latin-America."

The total imports of these countries had increased from \$508,500,000 in 1887 to more than \$660,000,000 in 1904; and of this sum the importations from the United States did not reach one-fourth. While the United States furnished 46.15 per cent. of Mexico's imports, of the total imports of the South American countries the United States contributed but 13.26 per cent. Here was a market of 45,000,000 inhabitants completely neglected. . . . Was it wise to leave the development of these lands to the Old World? There was, besides the commercial danger, a political one. What would become, under such conditions, of the boasted predominance of the American Union in the New World?

Touching upon the Venezuela episode, the occupation, evacuation, and reoccupation of Cuba, M. Viallate proceeds to treat of the third Pan-American Congress, held at Rio de Janeiro in July, 1908, and at which nineteen republics of the New World were represented. He describes the work of the congress as "modest in extent," although the "laborious sessions lasted more than a month." One of the principal votes was that reorganizing the Bureau of the American Republics. On the occasion of laying the foundation-stone of the building to serve

as a new home for the Bureau President Roosevelt said:

This is a memorable event for all the nations of the western hemisphere. The edifice of which we lay the first stone to-day bears witness to the increasing sense of the solidarity of interests existing among all the peoples of the New World. It is a proof that we recognize the necessity of uniting more closely the republics of the western hemisphere by the friendly bonds of mutual justice, of reciprocal good-will, and of a sympathetic comprehension.

A CRITICAL TIME.

Commenting on this, M. Viallate remarks that "the ambition of the Americans to exercise a hegemony, at least moral if not material, over the nations of the New World is regarded by the latter as a sort of right of primogeniture." But he adds, "circumstances have not yet permitted the United States to fill the rôle which it regarded both glorious and profitable." Meanwhile the South American republics have made progress. "A new era is opened to them, capital and immigration from the Old World pouring in upon them." This happy condition of things, however, "renders singularly pressing the realization of the designs of the United States." To quote Mr. John Barrett, for many years a resident diplomat in Latin America and now Director of the Bureau of the American Republics:

To say that we have arrived at a critical moment for North American prestige and commerce in Central and South America is not the declaration of an alarmist or a pessimist. Never have the nations of Europe made such efforts to develop their commerce and prestige in these countries as they are now doing. Moreover, it would be useless to deny that a considerable portion of Latin America manifests to-day a greater sympathy for the friendship and the commerce of Europe than for those of the United States.

M. Viallate says further:

In spite of the precautions of American diplomacy, prejudice and distrust toward the United States persist among the South American peoples. Too long the Yankees [this word is the author's] there have been treated with disdain. . . . On the morrow of the last conference a Buenos Aires journal said: "As regards the delegates, the public, the foreigners, the conference at Rio de Janeiro was only one of brother enemies."

He thinks the American Government will persevere in the course it has mapped out, and that ultimate success is not impossible. President Taft will pursue the policy of his predecessor, and he will have a powerful aid in Senator Elihu Root.

THE GERMAN KAISER'S "AMAZING PERSONALITY."

UNDER the laconic heading "S. M.," Mr. George Sylvester Viereck, the young German-American dramatist and poet, gives in the *Mirror* a sketch, amusing, analytical, and critical, of Kaiser Wilhelm II. "S. M." stands for *Seine Majestät* (His Majesty), as Germans call their Emperor, "when they speak of him unofficially." S. M. is perhaps "the greatest contemporaneous figure; surely the greatest riddle. The Sphinx is easier to understand than the Kaiser; and woman is an open book as compared with him."

And it really isn't difficult for the Sphinx to be mysterious. Its greatest mystery is its silence. But the Kaiser isn't silent. He makes speeches. Many of them. Even grants interviews. And still leaves us puzzled. There has never been anything like it. He reconciles in his person the most incongruous traits. He is the most impulsive of reigning monarchs. There can be no doubt about that. Yet he is almost Machiavellian in premeditation. That telegram to Kruger was impulsive, yet carefully calculated, and prepared at the Foreign Office! Shrewd observers say that the historical interview in the London *Daily Telegraph* had been no less carefully launched. And that the hubbub attendant upon its publication furthered some far-seeing plan. At the time, it will be remembered, a cyclone broke loose in German editorial ink-spots. And, behold! William, the imperious, humbly bowed his head! Perhaps he smiled to himself somewhat sadly. But he said nothing. . . . And then, suddenly, it began to dawn upon Germany that the Kaiser's gravest indiscretions are often his shrewdest coups.

There is nothing hypocritical about the Kaiser. But there is no explanation. He has to be accepted as "two distinct personalities."

He is monarchical to the bone. Yet it was he who opposed Bismarck's anti-Social legislation. He is the official head of the Protestant Church in Prussia, yet Roman ritual and Rome possess for him a strange fascination. He loves pomp, but his children are reared with bourgeois simplicity. His preoccupation is war; he, nevertheless, is the staunchest champion of peace. He hates the English, and he loves the English. He is a mystic and a rationalist. His inclinations are medieval, but he knows more about the technical intricacies of a modern gunboat than his own engineers. He would be capable of restoring an ancient castle, famed of minnesingers, and of establishing wireless telephony on its ramparts. He is the only man who could do this without being absurd. Because he is the legitimate offspring of Romanticism and Modernity. Of his two natures, one

belongs to the Twentieth Century. One to the Middle Ages. One is despotic. One democratic. One hates the English. One loves them. One talks freely, perhaps too freely. One is silent as the sepulcher. And secretive as the Inquisition. Peace lights on his right. Hounds of war are leashed to his left. There are two Kaisers, both of whom labor for the benefit of the realm, each in his separate way, unconscious of heterogeneous intention.

On account of this heterogeneity Mr. Viereck considers William II. "the authentic exponent of modern Europe." "Most modern monarchs," he says, "compromise either too much or too little."

The English King is a figure-head. Great Britain has finally disposed of the divine right of kings, the only logical basis of kingship. Edward is king in name only. The Czar, on the other hand, stubbornly refuses all concessions and lives in constant dread of poison and nitro-glycerin protests. It is all a question of readjustment between the passing order and the new order. Even the Turk struggles with it. Abdul Hamid was up against it. He found no solution, and the monster hurled him into the abyss. The giant Modernity everywhere shakes his fist against the lavendered glory of medieval tradition, but has not overcome it. It is still part of our lives. William II. is the living incarnation of this great contradiction. He is logical, because he is illogical. He is the only logical monarch in Europe. He is an ideal Kaiser. He is in tune with the *Zeitgeist*. If Germany were to be declared a republic to-day, and a president had to be chosen, the unanimous choice of the people would be William II.

America could never have produced William II., because it "lacks the glamour of the Middle Ages." The Kaiser has sometimes been compared to ex-President Roosevelt; but to do so is "like comparing a phonograph to a nightingale. It may imitate the nightingale bravely, but there is something missing."

Not only as a ruler is William II. remarkable. He is also a genius. As one of his friends said of him: "William would have been conspicuous in any profession. If a cobbler, he would have been a master cobbler. He is, as it were, many things: strategist, poet, musician, general, diplomatist, huntsman, painter, engineer."

Nero tried his hand at some of these things. But it cost him his life. Frederick the Great dabbled in verse. But it was wretched verse. The Kaiser's endeavors in manifold fields would have made reputations for men of lesser caliber. But he still remains, above all, the Kaiser. . . .

The luminous figure of William II. dominates the earth. The shadow of his sword makes Britons tremble. But, unlike Frederick the Great, William the Great has accomplished his victories without bloodshed. For one and twenty years he has been Lord of Peace. The Seven Years' War was surely a wonderful thing. But what shall we say of a three times Seven Years' Peace?

According to Mr. Viereck, Germany is divided into two camps: "those who follow the Kaiser blindly and those who oppose him blindly."

The Kaiser's personal charm is more potent than that of Circe. Unlike Circe, he turns his admirers not into swine, but into patriots. Like Julius Cæsar, William II. can be all things to all men. He is a brilliant conversationalist, and as he listens to you he seems to enter into your mind. Yet all the while the portals to his mind are guarded. That, I believe, is the secret of rulers of men. It is incredible what sacrifices Germans, hard men of business, will not make for one smile from his imperial lips. There is August Scherl. Runs a chain of newspapers. Got the trick over here. Publishes the *Lokalanzeiger*. Formerly ultra-yellow. Suddenly reversed policy. Deliberately made it politically the dullest paper in Berlin. Merely because S. M. is said to read it! So as not to offend the Sovereign. There was no diminution in circulation. Suppressing its yawns Berlin religiously peruses the *Lokalanzeiger's* castrated

pages. "You see," Germans explain, half apologetically, half with the pardonable pride of sharing, in a sense, the mental pabulum of their ruler, "S. M. reads it. I. M. (*Ihre Majestät*), Her Majesty, also." And yet it is all a myth. I don't say that the Kaiser never reads the *Lokalanzeiger*. But he reads many papers. His desk is strewn with a bewildering variety of them. And with all the new magazines. Sometimes, no doubt he even sees the *Vorwärts*, Bebel's radical mouthpiece. It is all nonsense, of course, that his news-dispatches are "doctored." William II. wouldn't stand for that. He picks up information wherever he likes. But being a busy man, he has his news "Romeiked," to employ a new verb, coined, I believe, by Richard Le Gallienne. The *Wilhelmsstrasse* supplies him regularly with clippings on every imaginable topic of interest. And finally the *Fürstenkorrespondenz*, a sort of *Digest* for Princes, supplies him with the epitome of the daily news and excerpts from editorials.

William II., like Frederick the Great in his time, is "the cynosure of the world. His seal is graven upon the book of life perhaps more deeply than Bismarck's. . . ." And if there is bitterness in his heart when he remembers the immediate past, and Germany "has forgotten how in a moment of hysterical agitation she trod his love under foot," William II. is great enough to forget also.

POPE PIUS X. AT HOME.

M. RENE LARA contributes to the *Fortnightly Review* a most interesting account of his reception by the Pope in the Vatican. To this he adds a study of the Pope's policy and a description of how he spends his day.

M. Lara says:

Rising at five o'clock, Pius X. is found by the dawn, as of yore, in his oratory, where every morning he says mass, served by his private secretary, Monsignor Bressan. Then, after an early cup of coffee and milk, come reading and correspondence, followed by a short walk in the lonely garden. Receptions and audiences, the reading of reports, interrupted by a frugal meal at noon, fill up the monotony of the long, cloistered days. And, again as of yore, when the day is waning and the church bells ring the evening Angelus, Pius X., like the apostles before him, summons two of the faithful whom devotion or employment brings to the Vatican and speaks a kind word to them, thus literally fulfilling the precepts of St. Paul to become "all things to all men, so that all may be gained over to Christ."

M. Lara thus describes the Pope as he found him in his room:

Behind a table loaded with papers, beside a crucifix hung high up on the wall and slanting, so that it seems to bend its look of pain upon him, I see His Holiness Pius X. standing erect in the imposing purity of his white cassock.

His strongly marked features are plainly defined in the broad light. The stature is powerful, the shoulders broad, the chin masterful, the mouth singularly expressive; but the gentleness of the glance, the crystal clearness of the kindly eyes soften the haughty outline. A plentiful crown of ash-colored hair encircles the little white silk skull-cap which the Sovereign Pontiff wears thrust on the back of his head; his plump and energetic hands are beautifully shaped; his voice is grave, sonorous, and distinct. His friendly simplicity,—I was almost saying his cordiality,—at once puts you at your ease.

With a simple gesture of the hand he invites my wife and me to take a seat on either side of him. He himself has sat down in a wide arm-chair in front of his desk, and, while speaking, with one hand he alternately takes up and lays down the gold penholder that lies beside the inkstand and with the other plays with the gold chain that hangs from his neck and supports a pectoral cross in emeralds,—a present from the Emperor William to Leo XIII. on his jubilee,—the green reflections of which sparkle in the rays of the sun.

Speaking of the time when he left Venice to attend the conclave that elected him, the Pope mentioned, with a smile, his purchase of a return ticket:

"So little did I think that I should never see Venice again that I took a *biglietto d'andata e ritorno*."

He long kept this return ticket. Wealthy collectors strove by every means in their power to become its purchaser . . . he invariably refused. Last year the King of Greece, in the course of a visit which he paid to the Pope, expressed a keen desire to possess this little piece of cardboard which has become for all time historical,—and the Pope gave it to him.

On the other hand, there is one humble relic with which nothing will ever induce him to part. This relic is his watch, a little cheap nickel watch.

"It marked the minutes of my mother's death-struggles," he says, "and the hour of my definite separation from the outer world, from space and liberty. It has marked all the sad, all the joyous, all the solemn moments of my life. What jewel could be more precious to me?"

He carries it fastened to a white silk cord in the broad sash which he wears round his waist; and he did not hesitate to offend against the etiquette which hitherto had obliged the Pope, when he wished to know the time, to apply to one of his prelates in waiting.

THE RISE AND FALL OF THE SPANISH MARINE.

NOT only on the unrivaled greatness of her naval power but on the excellence of her maritime laws, her merchant fleet, and her command of the routes of trade did Spain once found her claim for supremacy among the maritime nations is the contention of Señor Francisco Espinosa y Gonzales-Perez, writing in *España Moderna* for July. Her early laws on the subject were so excellent that other nations were only too glad to follow where they could not lead.

Our maritime legislation during the Middle Ages furnished a model of such complete perfection that it was copied by other states, while even to-day the best and highest of legislation regarding naval construction, navigation, or imposts finds its precedent with us as early as the thirteenth century.

At that time Catalonian ships frequented the ports of the Levant, Egypt, and the Berber, and in the sixteenth century Spain was the first mercantile power of the world. More than one thousand ships constituted her merchant marine, and no other nation could equal it. The Republic of Holland did not exist; England did not dream of ruling the seas until the reign of Elizabeth; the rise of the Hanse towns had not yet taken place; France had neglected the great navy that had been created by the great minister Colbert; only Portugal could vie with Spain. Yet already there were noticeable the germs of future decay in the decline or sacrifice of the once most powerful maritime state of the nation,—Catalonia, with Barcelona at its head. This state, though under the suzerainty of the Spanish crown, continued in many respects to maintain its former independence. It refused to submit to the ordinary imposts levied upon the less privileged kingdoms be-

longing to the Spanish crown. It therefore remained cut off from the benefits which they enjoyed, while other circumstances hastened its decline. In 1498 Vasco de Gama opened the new all-sea route to the Orient, coincident with the closing of the land routes by Selim I., conqueror of Egypt. Compensation for the lost Oriental trade by participation in the American trade was selfishly prevented by the more powerful state of Castile.

Soon after the disaster to the invincible Armada the navy began to decline rapidly, in spite of the efforts of Philip III. In 1656 it was reduced to six unseaworthy ships, as contrasted with the 130 vessels of the great Armada. Charles II. found himself constrained, in order that the business of the realm might not be brought to a stop, to rent vessels from Genoese merchants. English and Dutch ships crossed the seas, continually molesting commerce, capturing galleons that came from America, and constantly menacing Spanish dominions in the East and West Indies. Spain possessed excellent building yards, abundant wood, iron, resin, etc., for the building of ships, but many causes prevented the growth of her mercantile marine. The efforts of the Bourbon rulers to restore the navy failed on account of their inclination to copy former methods rather than to plan new ones. A supererogation of protective legislation only defeated their own end, added to the difficulties, and hastened the fall of the Spanish marine. In 1720 it was ordered that all grain carried in Spanish vessels should command a market price one-fifth higher than that transported in foreign bottoms. Nevertheless the market price at once became lower. Other nations overran the seas with entire liberty, thus effecting a sav-

ing of time and money, to the end that their freights became cheaper. Furthermore, Spanish vessels, acting always on the defensive, must go heavily armed and carefully guarded. In this way a confusion of the concept of a navy and that of a merchant marine arose. The shipping belonging to the class of neither one failed to fulfill the functions of either.

Finally, by the eighteenth century, almost all the maritime commerce of Spain and her colonies was in the hands of foreigners. Over a thousand Dutch and English vessels engaged in the trade, in spite of laws intended to reserve all the benefits to Spaniards.

At this time the terrors and ravages of the Mediterranean pirates at last accomplished the complete ruin of mercantile enterprise. The coasts of the nation were overrun by

hoards of cut-throats; citizens were sold into slavery, even the very life of the nation was threatened. Sporadic reform became a necessity.

Alberoni surprised Europe with a powerful fleet that served for the moment to win Corsica and Sardinia, but the merchant marine was lacking. The victory could not be sustained, and in consequence the wounds suffered by the country were severe. Again during the eighteenth century Patino and Ansenada instituted a powerful navy, which has been called "the strongest ever owned by Spain." It consisted of 304 vessels. But again the lack of a merchant marine caused "the most earnest attempt at rehabilitation" that Spain has yet made to come to nothing.

But not until the ninety-eighth year of the nineteenth century did our devoted navy receive its death blow, when the relics of our power and traditions were laid at rest in the waters of Cavité and Santiago de Cuba.

THE COMMERCIAL "FAILURES" OF THE UNITED STATES IN THE PACIFIC.

THE immense and swift development of the Japanese East-Asiatic shipping trade is one more link in the chain of surprises which the "land of the rising sun" has recently given to the world. The fact of her having in such great measure crowded out other nations in this line and the reasons of her success are clearly and circumstantially set forth by Dr. Ernst Schultze in a recent issue of the *Preussische Jahrbücher*. The decline of the East-Asiatic trade of the United States in the last years has been most striking; the causes that induced it are convincingly brought out by the writer. He says:

The intense optimism of the people of the United States led them for a time to paint the future in such rosy colors that a check to the mighty strides their country was making seemed impossible. They dreamed not alone of an economic conquest of Europe but that the East-Asiatic nations would become wholly dependent, economically, upon the United States. The prolonged boycott of American goods in China in 1905 was the first great disappointment. Directly upon this followed the difficulties with the Japanese consequent upon the reckless enmity displayed in California and other Western States. These were, it is true, smoothed over through skillful diplomatic negotiations; and by sending the American fleet to East Asia it was thought that the Japanese would be so impressed that no further difficulties would have to be feared. But this assumption has proved deceptive. What, however, has perhaps a still more depressing effect in the United States is the fact that the

traffic between the United States and East Asia, from which American shipping expected to reap great benefits, is being transferred with marvelous rapidity and irresistible force into the hands of the Japanese.

The plan of enlarging the compass of the American shipping trade with East Asia was specially promoted by J. J. Hill, the most energetic and ablest of the American railroad kings, and was also advanced by his rival, Harriman, says this writer.

Already as a boy the former had dreamed of the economic opening of the Orient. When, after the restless labor of decades, he had completed the three great railway lines which helped to people and develop the Northwest he reverted to his youthful dreams. He wished, above all, to find a market for American wheat in over-populated Japan. His idea was to furnish the millions of the Orient with wheat which would be as cheap as rice.

In order to carry out his far-reaching plans, he induced a Japanese steamboat company to send its ships to Seattle. Subsequently he himself had two giant vessels built for the Pacific trade. He succeeded, too, in procuring for American industry the first Japanese order for rails and cotton. After long negotiations, the first load of American wheat flour was sent, by way of experiment, to China. Soon 150 to 200,000 tons of flour were annually exported to East Asia, while the yearly export of cotton to Japan amounts to 166 million pounds.

But "a great crack has appeared in this fine edifice that J. J. Hill so eagerly wished to construct."

The export of wheat flour is diminishing,—nay, it is exceeded by the import of Japanese food products. The export of cotton goods from the United States diminished by more than half from 1906 to 1907. And this decline is due solely to the collapse of the American cotton trade with China. The Chinese, owing to the bad treatment of their people in the United States, have refrained as far as possible from purchasing American cotton, so that the imports, which in 1906 amounted to 29.6 million dollars, had sunk in 1907 to 5.7 millions.

The cause of this phenomenon is hardly to be sought in a permanent decline of American traffic with East Asia, this writer believes, which if looked at in the aggregate for a number of years has had a normal development.

But it is an unmistakable fact that the shipping-trade in the Pacific Ocean is discarding all other flags with torrent swiftness and is turning to that of Japan. Until now the forwarding of freight between North America and East Asia has been carried on by three groups,—the American vessels, running at regular times; the English tramp-ships, running at irregular intervals; and the Japanese lines, which, like the American ones, had definite sailing-dates. Now, however, the first group can no longer stand the competition, while the second realizes some profit, now as before, it being regarded as a merely incidental matter.

The other American companies engaged in East-Asiatic traffic besides the steamers of the Hill railway lines, the writer reminds us, are the Pacific Mail, the Boston Steamship Company, and the fleet of the Canadian Pacific Railroad. So far the tonnage of the vessels sailing under the flag of the Union exceeds that of any other nation trading between North America and East Asia.

But the fact remains that all the freight shipped from the American Pacific ports to East Asia can be forwarded more reasonably by the English tramp-ships, of which there are about a dozen, or by the Japanese steamers, than the giant steamers of the United States can afford to transport it. If they do it anyhow it is with a heavy loss. A modest gain might be made by getting the goods from the eastern section with special rates on Hill's railroads, which, however, would be granted only in case they were to go on a Hill steamer. The same is true of Harriman and his Southern Pacific Railway. The Hill freight agencies in the eastern section of the United States have a bitter struggle with the shipping lines which carry the freight from New York through the Suez Canal. The latter have a double advantage, because it has been customary to convey all freight to East Asia by this route and because the chief exports from the United States to that part of the world consist,—outside of raw cotton,—of articles manufactured in the industrially advanced section of the country,—the Northeast. About the only commodities, therefore, which the West regularly ships are petroleum and wheat flour. As has

been mentioned, the quantity of the latter is not considerable. Petroleum is sent to East Asia either as crude oil or after it has been refined in San Francisco. But what renders the competition of the American Pacific lines with those going over the Suez Canal specially onerous is a new railroad law which compels the railway companies to publish a lowering of freight rates three days and an increase ten days in advance. As this does not affect the lines going by the Suez Canal route the American Pacific shipping trade is severely handicapped. The railroads are, besides, compelled to state in taking over freight how much of the expense is for shipping and how much for railroad transit, and it is a painful fact for those on the Pacific that the former means of transportation is much cheaper.

All this, however, would not lead to the "indubitable ruin of the American shipping trade in the Pacific Ocean" if the sharp competition of the Japanese were not a factor in the case.

They, however, snatch away one portion of the shipping-trade after the other. They have even succeeded in crowding out the most noted English steamship line, the Peninsular & Oriental Company, from East-Asiatic traffic. For fifty years did this English line successfully carry on trade in the East, but now it frankly admits that it is being steadily driven out by Japanese shipping. How has the Japanese merchant marine been able to attain such successes? But fifteen years ago, outside of the paltry "sampans" used only in coast-trade, they had scarcely any merchant vessels. The policy of exclusion so religiously followed for three centuries had totally ruined Japanese shipping. It is only in the last twelve years that Japan has sent her ships to China, India, Australia, England, and America. The coastwise trade of East Asia is almost exclusively carried on by the Japanese lines, which send out their vessels at least once a week. The ship-subsidies granted by the Japanese Government have contributed greatly to this rapid development. But it must be borne in mind that the government was in a large measure forced into this policy; so many steamers were acquired in the war with Russia and so much capital had been expended upon them that some use had to be found for them after the war; and added to them were the captured vessels. That for the rest the Japanese would be able to develop a shipping of the present magnitude they themselves would likely have doubted as late as ten years ago. Their ships were then commanded by white captains,—mostly Americans or Englishmen. The crew, too, were mostly Americans, only secondarily Japanese or Chinese. To-day officers and crew of the two greatest Japanese marine companies are almost exclusively Japanese or Chinese. The pay of the yellow sailors is notoriously very much lower than that of the whites, while their board, too, is far less expensive. In addition to this, shipbuilding is much cheaper in Japan than in America, even overlooking the fact that the shipyards also receive government aid. But wages are materially lower in Japan than in North America; while wood, which is still the most indispensable material for ships,

is considerably cheaper than in the United States. For Japan still possesses 20 million hectares of well-cultivated forests, while the United States, though still in command of stately stretches of woodland, has suffered frightfully through the irresponsible devastation which has been going on for decades.

What the Japanese did not until recently possess and had to purchase at high rates from abroad were marine-engines, steel-plates, rivets, etc. But the government has established large work-shops in order that such things, too, may be furnished at home as far as possible. Thus Japanese shipping in the Pacific is steadily undermining not only American but European shipping also. The tonnage of their merchant marine rose from 477,430 tons in 1898 to 1,115,880 tons in 1907.

The prospects of American shipping in the Pacific are considered poor.

It is perhaps not looking at the matter too darkly to predict its entire extinction. The high protective tariff in the United States, though it has brought considerable riches to the country, has sadly crippled the competing power of their

manufactories and shipping. The entire economic life in the United States is to-day based upon such high wages that in a case where the protective tariff is ineffectual,—as in the sphere of shipbuilding,—that country must succumb in opposition with other States. The United States has, therefore, but one ray of hope. The economic policy of Japan does not rest upon an altogether solid basis. The government subsidies granted to navigation-companies, wharves, factories, etc., may lend these a passing brilliance, but cannot make them lastingly strong. The war with Russia inflicted deep financial wounds upon the country which will not be healed for many years to come. Poverty increases in the land, although wages in many branches are rising. Expert work the factories of Japan can for the present produce only in exceptional instances. It is not impossible,—rather indeed likely,—that they will attain that too. Wages, however, will then doubtless rise also; and with that a part of the “yellow peril” will disappear, through which American shipping in the Pacific is now so heavy a sufferer. But whether developments will assume this shape and how long a time they will need no one can at present foretell.

SOME FACTS ABOUT LEPROSY.

“WHO shall decide, when doctors disagree?” is a query that naturally suggests itself when one thinks of the case of Early, the man who, after having been quarantined on suspicion of being a leper for nearly a year by the Health Commissioner of Washington, was sent to New York in a baggage car and was soon afterward discharged from the New York Skin and Cancer Hospital because he had no symptoms of leprosy. Commenting on this case in the *Medical Record* (New York), the well-known specialist in skin diseases, Dr. L. Duncan Bulkley, who is physician to that hospital, presents some interesting facts for the benefit not only of “the public at large” but also for “those in the profession who possibly may not yet have perfectly clear ideas on the subject.” The reference to leprosy in the Bible, and in certain popular works of fiction, such as “Ben Hur,” have engendered a great dread of the disease; on the other hand, “there has been very little said or done to check or lessen the popular prejudice in this direction, which has been too often shared by physicians, who, not having devoted special attention to the matter, accept thoughtlessly the general verdict.”

According to Dr. Bulkley, although the word “leprosy” strikes more terror “into the heart of its victim, or suspected victim,

and also into the mind of the average layman, or even physician, than that of almost any other disease known,” yet to those who are well informed “it bears no comparison to either cancer or tuberculosis in the mental distress which it should cause in those afflicted, while syphilis and many other diseases should inspire far more dread of contagion.” Prolonged and careful study of Leviticus xiii. and xiv. has convinced the scientists that what is now known to the medical profession as leprosy was “not included in the description given” in the Biblical references to that disease. In other words, *lepra*, or *elephantiasis Græcorum*, is not “the leprosy of the Bible.” Formerly *lepra* was “a common designation for psoriasis,” and this latter is probably the disease referred to in the Biblical expression “a leper as white as snow,” as neither tubercular nor macular leprosy “ever presents a white diseased surface.”

It is not generally known that, “in the climate of America at least, leprosy is really a harmless affection to those who come in contact with it.” Dr. Bulkley cites Dr. William H. Welch, of Johns Hopkins Hospital, who, in reference to the Early case, recently remarked: “Leprosy is practically the least contagious of all the infectious diseases.” Many years ago the Leprosy Committee of

the Royal College of Physicians of London reported that "the all but unanimous conviction of the most experienced observers in different parts of the world is quite opposed to the belief that leprosy is contagious or communicable by proximity or contact with the disease." The most striking testimony to the non-contagiousness of leprosy, however, is furnished by the experiences of those who have worked in leper settlements. Father Clement, for instance, whose death was reported a few months ago from Honolulu, had worked for forty-six years among the lepers on Molokai. Though in constant contact with lepers, he "finally died of other cause, without having contracted the disease." Similar testimony is given by Dr. Beaven Rake, medical superintendent of the Trinidad Leper Asylum, who writes:

The sisters [Dominican nuns who have nursed at the Asylum since 1868] are in daily contact with the patients, washing their sores, applying poultices, and bandaging their crippled limbs; yet no sister, nor any other of the attendants, has yet developed the disease.

Dr. Van Allen, of the leper hospital in Madras, India, which cares for 150 lepers, says "none of the dressers who freely handle even ulcerated surfaces have contracted the disease." In Norway, lepers are permitted to dwell in their own houses, if they desire to do so.

Leprosy not being contractible by contagion or contact, how is it acquired? This question remains unanswered; "for neither race, climate, soil, nor hygiene can be charged, so universally spread is the disease." Dr. Bulkley, however, evidently favors the "fish theory." He says:

For a great many years various observers have

claimed that there was the greatest probability that the disease was conveyed through fish, in some way or other . . . and in the light of modern knowledge regarding the conveyance of various diseases by means of lower animal life the theory would seem to have fresh scientific support. . . . I know that Mr. Hutchinson's continued and warm advocacy of the fish theory has been subjected to much ridicule and is not generally accepted; but to my mind it offers the most satisfactory solution of the problem. . . . Mr. Hutchinson's arguments in favor of the fish hypothesis are so clear and strong that I must give some of them, condensed:

"No other article of food can be mentioned which is in use in all leprosy districts. Most of the places where leprosy is prevalent are on the sea coast, and it is especially common on islands. Almost all the large fish-curing locations are the homes of leprosy, and it is often met with also in the countries to which their products are most freely exported. It is not necessary, of course, that a large quantity of fish be eaten, for the smallest portion, if it contains the germ, can introduce the disease. Thorough cooking of fresh fish probably destroys its power of communicating leprosy, if it chance to be infected, but it is known that fish are often eaten raw, or improperly cooked, and also that very large quantities of dried fish are consumed throughout the world."

As an example of a possible means of conveyance, Dr. Bulkley points to caviar, which is always eaten uncooked; and he asks: "If the raw oyster can be the means of communicating typhoid fever, what is there unreasonable in believing that fish, under certain circumstances, can introduce leprosy?" Mr. Hutchinson not long ago "made an extensive trip to countries where leprosy is endemic, and was more than ever convinced of the truth of the fish hypothesis." Dr. Bulkley himself thinks that "there is certainly enough reasonableness in the theory to warrant careful scientific inquiry along modern lines of bacterial research."

THE "PRACTICAL UTILIZATION" OF THE POLAR REGIONS.

PROF. OTTO NORDENSKJOLD, a noted arctic explorer, writing in the *Deutsche Revue*, gives an informing and interesting view of the polar regions, their animal life, scenery, the way they are and have been exploited, and how they ought really to be utilized, etc. Spitzbergen, in particular, occupies his attention; interest in that island has recently been revived through the prospect of utilizing the coal-fields; besides, its peculiar scenic beauties attract many tour-

ists, who, with our present traveling facilities, can make the journey both comfortably and safely.

It is a peculiar phenomenon that the cold and coldest seas actually harbor more life than the warmer ones. We know that the polar waters abound in fish. The great fish sites on the coast of Norway, Iceland, and Newfoundland are not, it is true, arctic regions, but they are nearly so. In the cold seas, too, we find in greater abundance than elsewhere the giants of the present animal world,—whales; and a great number of

varieties of these creatures are either wholly polar or are at least most frequently met in the moderately cold seas. Seals, too, may be termed arctic animals; not a single species of these is found in the waters of warmer regions. And, finally, it is the rich faunal life of the seas that furnishes sustenance to the countless flocks of sea-birds inhabiting the arctic coasts.

If the polar seas teem with life, the same cannot be said of the polar lands, and until very recently they served men, and birds and seals as well, chiefly as a foothold for utilizing the products of the sea.

In our times repeated expeditions with purely ideal aims have been undertaken to these lonely, cold lands, and a more recent phenomenon is the host of tourists who repair in summer to certain arctic regions; but after all it was practical ends that first and foremost enticed people to those lands.

Spitzbergen is of all polar lands the one that has from the oldest to the present time elicited the most attention. Although in the very heart of the arctic regions, this island group lies quite near Europe and the Gulf Stream makes it much more accessible than any other islands in the northern zone. Its history, too, offers far greater interest than that of other polar countries. Says this writer:

Although discovered by the Dutch in 1596 its real history dates from 1607, the time of the visit of Hudson, who first acquainted the world with the natural wealth of Spitzbergen. There were, first of all, the great, easily destroyed Greenland whales, with their abundance of blubber, which are so valuable even to-day. Then a veritable invasion followed; whole fleets gathered there, and localities were founded, some of which had several thousand inhabitants during the summer. This glory, however, lasted only about fifty years. The hard-pressed whales retreated to remoter parts and the seals were not valuable enough to entice such large numbers of people. Very lately hunting, now for the hump-back whale, from permanent bases, has flourished anew. But it almost seems as if this would not last, and it is very doubtful whether it is economically profitable. It appears as if instead a vast field in an entirely different arctic sphere were to be opened to-day for this sort of whale-capture, and that is the antarctic regions. . . . Since about ten years ago hunting whales from the southern point of South America has been resumed. Since they are very numerous in the Southern seas and permanent bases are scant, the danger of extinction is still remote there. The same may be said of the seals of the South.

Spitzbergen, this German writer reminds us, is a land without an owner, and laws for it would have to be enacted by international agreement. But the case is different with most of the other arctic and antarctic islands. The companies operating there from perma-

nent stations have consequently received Government concessions.

A quite different position from that of the arctic countries just under consideration is occupied by Greenland. The largest, and next to Spitzbergen, the most important and most discussed polar land, it forms a very small continent, whose southern point projects into the temperate zone.

Mid a "splendidly wild nature," in a narrow strip lying between the greatest ice-mass of the northern hemisphere and an ocean almost ice-free for many months of the year, resides a group of the only polar people of the globe,—the Eskimos. Belonging to Denmark, really and not only in name, since for centuries competition from outside has been strictly debarred, the object of this seclusion has, indeed, been attained. Thanks to it, perhaps, the Eskimos continue to exist to-day; at any rate, they owe to it their comparatively pleasant mode of life. How far it has benefited them economically is a different question. At all events, the Danish Government has organized a special traffic with the natives, buying the products of the country in exchange for clothing, utensils, provisions, etc. The trade used to be quite profitable, but at present Denmark is a considerable loser.

The splendid white skin of the polar bear of Greenland, however, is a highly prized ornament; the skin of the arctic fox is still more so. Less valuable are the reindeer, but as they are found in large herds and their meat is edible, they, too, are profitable to the hunter. They and some other kinds of animals were eagerly hunted long after the golden days of the whale-hunt had ceased. Although at present the chase has considerably diminished, the hunt for the arctic fox and the collecting of eiderdown are still continued, while the polar bears and the walrus have shared the fate of the Greenland whale, and except in the extremest north are rare visitors to the coast.

Only a few years ago Spitzbergen aroused a general interest, and colonization has assumed a new phase. In the first place tourist-travel extends now to the remote polar islands: passage to strange lands is at present accomplished with a safety and ease undreamed of in former days.

The feeling alone that one is far removed from all civilization, from regions governed by the laws of human society, entirely alone with nature, has something alluring in it. And what a nature! Mighty mountain spurs, rising from their eternal mantles of ice; icy streams filling the valleys and projecting far into the ocean. Wondrously beautiful days, with the intense blue and white, when during the summer the sun never sets; while in contrast in the depths of the fords often a smiling green on the mountain slopes. The immense flocks of the most varied sea-birds, the magnificent swarms of eider-ducks, the reindeer, which in spite of being hunted since centuries have not learned to fear man and shun him,—all this must involuntarily enchain the interest of every lover

of nature. Besides the beauties of nature and the animal world, Spitzbergen has a new attraction in its coal mines. Coal is found in great quantities, and is now readily accessible from the fiords. Its quality and the extent of the deposits have long been known, but the idea of utilizing it has been entertained only of late. The coal formation is recent and not of the best quality, but the greatest obstacle is offered by the polar conditions. Imagine a country shut off seven or eight months from the rest of the world, a night lasting three months, and the winter storms and cold of the polar regions!

Two aspects, then,—the accession of tour-

ists and the mining of coal,—have lately drawn attention to Spitzbergen so strongly that the situation has developed into a political question which must be solved by diplomacy. It is evident from what has already been said that if advancement proceeds as it has done some order must be introduced. Not a few nations, therefore, are turning their gaze upon Spitzbergen; and a diplomatic conference, it is stated, is to be held shortly to discuss Spitzbergen's future.

MAIN CURRENTS OF MODERN LITERATURE.

IF the modern novel be any index of what modern society really is then the price one has to pay for the moot advantage of being alive is, indeed, a heavy one. This is, briefly, the gist of a thoughtful paper contributed to *Etudes* (Paris) by M. Suau, who is not less interesting in his capacity as a critic because he happens to be a Jesuit. And though he confines his animadversions to current French literature, it would appear that they are applicable the whole literary world over, as far, at any rate, as the modern novel is concerned. Monsieur Suau divides modern novel-makers into three classes, namely, the happy-go-lucky (*insouciant*), the pessimist, and the spirited (*courageux*) or optimistic. Plunging boldly into the middle of matters, he has the following remarks to make anent the first mentioned:

The happy-go-lucky type of writer is, in my view, that one who seeks not to show that life has a real aim. To him it is simply existence to be played with and enjoyed without remorse, without regret and without any attempt at making any philosophical inquiry into its reason or nature. In his work there is a total absence of a moral sense. Openly and unblushingly he celebrates in his cynical and easy-going fashion the triumphs of instinct, while conscience is conspicuous altogether by its absence in the lives and deeds of the actors portrayed. The result is to raise up a generation of young people who have thrown aside all the old-fashioned virtues and who possess no more patriotism, religious beliefs, filial respect, regard for the home or regret for perishing ideals. Their sole aim in life is to realize whatever material profits the world can give them, and defeat in the eager struggle for the good things of the earth is the worst of all possible evils.

There is, according to this writer, much more hope, from the literary point of view, for the pessimists, although little can be said for their viewpoint of life, considered from a purely religious aspect. Says M. Suau:

The pessimistic literature of our age, if more dignified *qua* literature than the previous, seems to draw upon all that is ignoble and sordid and evil for its characterizations. Human misery, suffering, and death are its principal notes. It is in many cases a pretentious pose arising out of the writer's disillusion, his lack of faith, his personal immorality or his vanity. More perhaps than any one or anything else, these writers are responsible for much of the evil they see in life, and when disillusionment comes upon themselves they imagine that the sun has set for the rest of human kind. In particular has the naturalistic school sought its inspirations in the wretchedness of the world. For them there is neither beauty nor heroism, to all and everything being applied the rule of the worst. Man is animal, and at his best and at his worst he always remains the animal. Consider Pierre Loti, for example, in *Matelot*, who preaches the vanity of all things in the following passage: "I believe in nothing and in nobody; I love nothing, I love nobody. This has been the result of twenty-seven years in the big world. I tried to be a Christian and could not. There is no God; there is no evil. There is nothing that is worthy of respect, and my heart is full of lassitude and bitterness."

Nevertheless, all is not lost. There is some hope in the fact that there exists a third and best type of literature which our Frenchman calls the "spirited." He says:

There is fortunately a class of literary men who endeavor to show mankind what beauty and good there lies in simple effort which is unmindful of merely material success. To show that life is a tremendously serious affair, that man has a task to accomplish here below, that the spirit of dilettantism is opposed to all proper conceptions of a well-ordered and full life, this is the duty such writers have put before them. Biography and not fiction has elected to play this rôle for the most part in the work of Barrès, for example, though some few romancers have given us constructive and uplifting work in the historical romance. The moral of such romances is that the world is not ugly and that life is not without its price.

FINANCE AND BUSINESS.

NOTES ON APPLIED ECONOMICS OF THE MONTH.

NATIONAL BANKS—THE INVESTOR.

LAST month appeared the answers made by national bank directors to a series of questions from the Comptroller of the Currency. The figures have caused some surprise, particularly to the thousands, among whom is a large proportion of women, who buy national bank stock as an investment.

Less than 13,000 out of 30,000 directors were willing to state for purposes of record that they were "familiar with the condition of the bank in all its details." Less than one out of three questioned stated that they were in the habit of approving the loans. Eighty-three per cent. answered that they were entirely unable to certify as to the genuineness of the commercial notes held by the bank. (Yet two dollars of every three loaned by national banks is represented by commercial "paper.")

Only 29 per cent. of the directors answering were in the habit of checking up the published report of the bank with the account books themselves. Finally, only a little over one-half were able to state that they had even read the national bank act or were familiar with its provisions!

Some of the failures of bank directors to direct are really unavoidable. Many of them are too engrossed with other affairs, or direct too many other banks, to check up and examine every merchant's or manufacturer's note held as an asset. But the Comptroller's questions have succeeded in showing the limits of the national bank examining system, at least. If the directors of an institution are not willing to say that the signatures of its borrowers are genuine, what can one expect from the hurried bank examiner who has two or three days to devote to the job?

It is all calculated to make the cautious-minded go on a hunt for something more than imposing names in the directorate before depositing money in a national bank or buying its stock. The essentials for success are two,—an open field and an experienced man. Many a small town is encumbered with three national banks where one would

do. And many a prosperous dry-goods merchant, farmer, or local manufacturer is acting as national bank president without the technical education, the knowledge of exchange and of investment conditions in different parts of this country and abroad, possessed and used by competitors.

"National bank stock" has such a solid, substantial sound to the investor that too often it is purchased without the little preliminary investigation that may make so much difference. When it is good it is, indeed, about the most nearly perfect security to put away and allow to grow for a period of years. But when the occasional trouble comes the stockholder is sometimes shocked to learn of his "double liability." The man who sold him the stock somehow did not mention or did not make clear that he might be called on for additional amounts up to \$100 a share in case the management of the bank needed the money to make good to creditors. And in despair the holders have very often refused to pay and have lost their interests in enterprises which quite often recover and become highly prosperous. Of the total assessments on national bank stockholders since 1865 of \$44,361,240, less than \$21,000,000 was actually paid in.

The right kind of national bank stock may pay a low dividend at first, but it has a way of growing. The 32 "national" members of the New York Clearing House have stock whose face value adds up only to \$111,400,000. But its present market value is nearly three and two-third times as much,—\$401,178,250. The average investor who bought these stocks at par can now get back \$360 for every \$100 put in,—not to mention the regular dividends received, in some cases as much as \$25 or \$30 a year.

NATIONAL BANKS—THE DEPOSITOR.

THE actual percentage of loss to those who deposit in national banks has been marvelously light. As compared with the more than \$44,000,000 assessed against their stockholders since 1865, there has been

but a little over \$33,000,000 in total lost to the depositors.

Below an extract is made from the Comptroller's report, showing the losses year by year back through the hard times of the '90s:

Year.	Number of National banks.	Amount of loss to creditors.	Ratio to deposits.
1888.....	3,140	\$751,716	.056
1889.....	3,290	Nothing.	...
1890.....	3,540	297,002	.019
1891.....	3,677	4,084,559	.257
1892.....	3,773	1,946,879	.110
1893.....	3,781	4,475,528	.308
1894.....	3,755	1,789,371	.104
1895.....	3,712	1,954,048	.115
1896.....	3,676	3,502,158	.219
1897.....	3,610	1,244,145	.067
1898.....	3,585	42,796	.002
1899.....	3,595	361,181	.015
1900.....	3,871	Nothing.	...
1901.....	4,221	117,569	.004
1902.....	4,601	1,113	.00003
1903.....	5,042	34,458	.001
1904.....	5,412	210,084	.006
1905.....	5,757	4,767	.0001
1906.....	6,137	Nothing.	...
1907.....	6,544	Nothing.	...

For the entire forty-three years covered there was but one-twentieth of 1 per cent. lost on an actual average to the people whose deposits averaged each year more than one and one-half billion dollars, and by 1907 exceeded *four and one-third billion* (a year of no losses). The figures show almost nothing in the decade ending 1907,—only \$1 out of every \$60,000.

When one considers the many obvious faults of the system itself, and the pioneer risks which have had to be taken by many hundreds of the banks, the record is even a greater tribute to the quick-wittedness and squareness of American bankers. And conditions are bound to improve with the perfecting of the "credit bureau" now being established at Washington for the detection of improper mercantile borrowing before it is too late.

LIFE INSURANCE COMPANY INVESTMENTS.

TO get at the experience of others is difficult in the field of investment. The individual does not want to tell his private affairs. And most big investing institutions, such as banks and trust companies, have different financial needs from the man or woman with a few thousand dollars "which must bring 6 per cent. and yet be safe."

A fairly close analogy, however, is furnished by the life insurance companies. Like the private investor, their first consideration in the investment of their "reserves" is good income with safety. There is no complication of the money being subject to demand, as in the case of banks.

How life insurance companies invest is

closely indicated by statistics furnished the Life Insurance Presidents' Association by Robert Lynn Cox, its general counsel and manager. The figures were especially prepared by fourteen large companies, representing seven States and owning a large majority of the entire body of American life insurance companies' assets,—\$1,420,000,000 out of \$2,650,000,000. This sum, with other funds received mainly from the companies' foreign business, has been employed as follows:

Real estate.....	\$93,948,411
Real estate mortgage loans.....	502,185,154
Collateral loans.....	34,644,154
Policy loans.....	185,872,929
Railroad bonds and stocks.....	845,115,674
State, county, and municipal bonds...	49,489,615
Other bonds and stocks.....	131,111,825
Cash.....	46,161,162
Miscellaneous.....	559,873
Total.....	\$1,889,088,810

Real estate and railroads are the backbone,—more than three-quarters. State laws, of course, restrict the disposition of life insurance money. But if they did not the list would probably be little changed in these respects. Just about one-third is in real estate and real estate mortgage loans. It is interesting that an investment rule of thumb, widely printed of late years, has given one-third as a proper proportion to be put into real estate of money which must furnish a living income.

An unexpectedly small percentage is taken by State, county, and municipal bonds. A life insurance treasurer explained this as due to the very favorable opportunities, increasing during the last ten years, for sound investment in mortgages. These two forms of making money work are comparable in that each may be made to yield more than 5 per cent., but may be difficult to turn back into cash for a fair price before the money comes due. The growth of the Northwest especially has made millions of new mortgage loans attractive to life insurance companies, as is plain when the total investment is considered geographically:

State group.	Investments.
Northwestern.....	\$144,847,826
Middle Atlantic.....	898,775,257
Southwestern.....	175,778,501
Pacific.....	81,314,499
Central Northern.....	304,850,890
South Atlantic.....	101,769,061
Gulf and Mississippi Valley.....	101,417,762
New England.....	80,335,014
Total.....	\$1,889,088,810

This table, by the way, contains some evidence that the money involved has been invested scientifically and not so much by the dictates of Wall Street, as has been al-

leged before fifteen State legislatures within the last two or three years. New laws have been sought to compel the investment of life insurance reserves within the State from which they have been drawn. Only one law has been enacted. But there has been much agitation, beginning with the insurance investigation of three years ago.

Compare the table above with the one below, which shows where the premium payments that produced the investment originated:

Group.	Annual premiums.	Per cent.
Middle Atlantic.....	\$121,558,316	42.66
Central Northern.....	53,165,368	19.01
New England.....	28,031,499	9.84
Southwestern.....	24,485,842	8.59
Gulf and Mississippi Valley.	18,201,357	6.39
South Atlantic.....	15,012,957	5.27
Pacific.....	12,143,081	4.26
Northwestern.....	11,331,822	3.98

For instance, about twice their share is given the Northwestern States. They receive more than 7.6 per cent. of the investment, but produce less than 4 per cent. of the premiums.

Since New England and the other elder sections have already become in general lenders of money instead of borrowers, the careful treasurers of the life insurance companies have turned of late years, more and more, to the field of "Western farm mortgages."

IRRIGATION BONDS "BETTER KNOWN."

THAT the speculation of yesterday may have become the investment of to-day is often overlooked by bankers of restricted view. As little as a couple of years ago many Easterners whose business it is to keep well informed shook their heads over irrigation bonds. But that was before the completion of engineering and agricultural marvels such as the 3458 miles of canals and ditches that the Reclamation Service has built, as per its report of this year, bringing under irrigation 4686 farms, covering nearly a million acres, and directly responsible for the establishment of more than 20,000 people on land formerly classed as arid.

Eastern opinion has changed. Mr. George W. Perkins, of J. P. Morgan & Co., a director in many railroad and industrial corporations, is quoted as saying of irrigation bonds, during a trip through the Western grain and fruit region:

"The market for bonds of this character is getting better, with certain limitations. Financing such enterprises will become easier with wider knowledge of their importance and safety. We all realize the im-

portance of irrigation to the Northwest and the entire country."

Indirectly the Reclamation Service has been of essential service to all worthy irrigation interests through its advertising of Western farm lands and their possibilities,—with water. Having been deemed worthy of Government attention, dams and ditches began to take on more substance, more fitness for investable funds.

From Director Newell, of the Reclamation Service, comes a word of discrimination important to investors. "Values result ultimately," he says, "not so much on the title to the *land* as on the ownership of the *water* to irrigate the land."

Not every irrigation company can prove the ownership of the flowing water on which success depends. Before investing employ lawyers of long experience in the tangle of Western water-rights; or employ bankers who employ such lawyers.

INVESTING IN ELECTRIC LIGHTS.

CAUTIOUS financial folks five years ago felt they had better not handle the stocks and bonds of companies in the electric lighting way,—at least "not yet." They "did not offer a form of security sufficiently tried and seasoned." (We quote from a recent address by President Vanderlip, of the New York National City Bank, before the National Electric Light Association.) But "when we note that the total investment in electric light plants has now passed well beyond the billion dollar mark and remember that five years ago there were some 4000 companies, with a total investment of, perhaps, seven hundred million dollars, that statement is surprising."

The people to whom electric light bonds were first offered could point to two great dangers. The first was the erratic and rapid march of new inventions. "No one knew," declared Mr. Vanderlip, "what moment some genius might come along with a new invention in dynamo or lamp that would make scrap of the best plant thus far erected."

Then there was a peculiar danger from competition. Any company which could get hold of fairly cheap power and could raise a few thousand dollars to start a small plant might string its wires into the very heart of an established concern's territory in a comparatively short time.

The recent technical improvement, however, has been along the line of perfection

rather than new invention. And in large cities wires overhead are less and less permitted. The conduit system is welcomed by the investor; there is less likelihood of a real rival company, and very little, indeed, of competitive "raiding."

But the investor's greatest safeguard, as Mr. Vanderlip feels, and as this magazine has repeatedly pointed out, is the movement to-day toward "reasonable regulation" of public service companies. The Public Service Commissions of New York and Wisconsin have set several legislatures to thinking. It seems possible that New Jersey and Connecticut will follow suit during the next legislative year.

The kind of electric lighting bonds best taken by the investor, Mr. Vanderlip remarks, are those of large issues in plants of large cities. The conditions should be settled and the growth steady. At least twice the interest charges should be earned by the company after plenty has been spent on the plant itself.

We have seen the electric lighting business grow more rapidly than almost any other form of industrial activity. A business that will double in five years as the electric lighting business has done has in it a vitality that is, of course, bound to carry it to enormous proportions.

THE TURN OF THE MONEY TIDE.

NOW is the time that the future money rate becomes a topic of more than special interest. A milestone in money movement was set in the second week of last month. The New York banks "lost" about a million dollars in currency shipped West and (mostly) South. A month before the metropolitan banks had "gained" the sum of \$5,000,000.

In the meantime the signing of the tariff bill had set manufacturers (of cotton goods and so forth) to building and extending and consequently borrowing. And extra farmhands, hired for the harvesting, were calling for their \$1, \$2, and \$5 bills.

It doesn't take long for such calls from the "interior" to put the rate up. The middle of last month President Forgan, of the Chicago First National Bank, looked forward "in the near future" to the normal fall shipments of currency and the normal raise in rates.

With a crop guessed to run into eight billion dollars, will there be any difficulty in getting money enough? any "tightness" and consequent disaster? There is special reason for answering no. The farming sections hold unprecedented funds of their own. Kansas banks have reported the heaviest deposits in history,—\$163,000,000. The banks of the important wheat country bordering on Seattle will furnish all the money to move the 1909 crops themselves, declares the *Post-Intelligencer*, "and will also be in position to make loans to buyers."

New York and Chicago bankers remind the South and West how often they have felt "independent" before the autumn money need, only to find themselves running short after all. Yet whole States have been changing character financially. Life insurance companies know how much scarcer are farm mortgages for their money. In the '80s, as much as 8 per cent. was freely offered by the farmer in Minnesota or the Dakotas or Iowa; it is now more and more difficult to make good loans at 5 to 6 per cent.

To-day the "interior" not only owns money,—it can get it when it wants it. The wholesome scare of 1907 led the banks throughout the country to keep more money in the nearest of the 29 reserve cities and not be tempted by a slighter higher rate to put too much in the central reserve cities,—Chicago, New York, St. Louis.

IN DEBT TO EUROPE.

UNLESS the United States increases its exports pretty swiftly its foreign indebtedness may be troublesome. The chorus swells in praise of "prosperity," as indicated by growing post-office receipts, bank clearings, and so on at home. But it is prudent to scan the debts to Europe,—especially for those affected by the course of security markets, such as the investors who want to dispose most profitably of their stocks bought cheap last year.

The first month since 1897 in which imports exceeded exports was July, 1909. Figures at the Port of New York show a "balance" to Europe's credit of \$2,837,862. And meanwhile more than \$13,000,000 of gold was shipped away. The fall foodstuffs will turn the balance; but the figures need watching.

THE NEW BOOKS.

AMERICAN HISTORY.

During the last two years of the Civil War a battalion of Confederate cavalry, known as Mosby's Rangers, enjoyed a fame and prestige out of all proportion to the size of the command. This band of scouts harried the Federal forces throughout northern Virginia, surprised villages and camps within the Union lines by daring raids, made off with large numbers of Uncle Sam's cavalry horses and large stores of supplies, and captured many Union soldiers and officers. To read the contemporary accounts in the Northern press one would form the opinion that the battalion was nothing more nor less than a band of cut-throats; yet the subsequent careers of many individual members of this unique command either give the lie to such an insinuation or prove beyond question that there was some mighty regenerating force at work in the ranks, for a large majority of "Mosby's men" have turned out to be thoroughly respectable and useful citizens, and would fight to-day as valiantly for the Stars and Stripes as any band of men who wore the blue in the '60s. One of these veterans, Mr. James J. Williamson, who served with Mosby from April, 1863, until the surrender at Appomattox, kept a diary of his daily experiences in those stirring times. This journal, supplemented with and verified by official reports, both Federal and Confederate, and illustrated with portraits and maps, forms a unique volume entitled "Mosby's Rangers,"¹ the second edition of which, greatly revised and enlarged, has just made its appearance. It is not to be expected that Mr. Williamson's recollections of incidents will precisely tally with that of Federal soldiers; yet his essential fairness as a chronicler is shown by the fact that he cites the statements of Federal officers as well as Confederate, and in disputed cases leaves his readers to draw their own inferences.

One of the most important of recent Government publications from the point of view of American history is a document entitled "A

Century of Population Growth,"² compiled by Mr. W. S. Rossiter, until recently Chief Clerk of the Census. This publication, which is really a monograph, discusses the historical aspects of the first census and analyzes the statistics gathered from the returns of that census in detail. This work, it should be noted, has been performed by Mr. Rossiter now for the first time, no attempt having been made heretofore to cover this ground. Mr. Rossiter's account of the methods employed in taking the first census

(1790) and his survey of the condition of the country at that period would make interesting and valuable chapters in a history of the United States. Indeed, much of the material that he has digested for the purposes of this publication is of the greatest historical significance. It seems to us that this bulletin ought to come into general use in connection with the historical studies conducted in our colleges and universities.

In telling how the Virginia counties got their names,³ Dr. Charles M. Long shows in an interesting way how these names reflect to a certain extent the thoughts and feelings of historic Virginians. The author declares that the nam-

ing of the Virginia counties furnishes more material for colonial history than the county naming of any other State. The references that he has compiled certainly go far to substantiate this claim. Many Virginians, we imagine, will be surprised by the historical ramifications of long-familiar geographical names.

THE DARWIN COMMEMORATION.

Apropos of the Darwin centenary there has been published a volume containing the addresses in honor of Darwin made before the American Association for the Advancement of Science at its Baltimore meeting in January of the current year. The leading aspects of the theory of evolution were assigned by a committee to specialists who by reason of their own

¹ A Century of Population Growth in the United States, 1790-1900. By W. S. Rossiter. Washington: Government Printing Office. 303 pp.

² Virginia County Names. By Charles M. Long. Neale Publishing Company. 208 pp. \$1.50.

³ Mosby's Rangers. By James J. Williamson. New York: Sturgis & Walton Company. 554 pp., ill. \$2.50.



JAMES J. WILLIAMSON, OF "MOSBY'S MEN."

high attainments were considered peculiarly fitted to treat them. The topics treated were as follows: "Fifty Years of Darwinism,"¹ by Edward B. Poulton, Oxford University; "The Theory of Natural Selection from the Standpoint of Botany," by John M. Coulter, University of Chicago; "Isolation as a Factor in Organic Evolution," by David Starr Jordan, Stanford University; "The Cell in Relation to Heredity and Evolution," by Edmund B. Wilson, Columbia University; "The Direct Influence of Environment," by D. T. MacDougal, Carnegie Institution of Washington; "The Behavior of Unit Characters in Heredity," by W. E. Castle, Harvard University; "Mutation," by Charles B. Davenport, Carnegie Institution of Washington; "Adaptation," by Carl H. Eigenmann, Indiana University; "Darwin and Paleontology," by Henry F. Osborn, Columbia University and American Museum of Natural History; and "Evolution and Psychology," by G. Stanley Hall, Clark University. A brief introduction to the volume is supplied by Prof. T. C. Chamberlin, of the University of Chicago.

A volume of commemorative essays on "Darwin and Modern Science"² has been edited for the Cambridge Philosophical Society and the Syndics of the University Press by Prof. A. C. Seward. These essays were prepared by eminent professors in British and Continental universities and deal with almost every phase of Darwin's contributions to science.

BOOKS ON RAIL AND WATER TRANSPORTATION.

The history of railroad promotion and capitalization in the United States³ is attractively presented in a volume by Dr. Frederick A. Cleveland and Fred Wilbur Powell. An important adjunct of their treatment of the subject is an exhaustive bibliography, the cost of preparing which has been largely borne by the Carnegie Institution. The writers promise to present at a later date subjects pertaining to the financing of construction and equipment, financial management, bankruptcy, receivership, reorganization, and consolidation,—the whole making a condensed survey of American railroad finance.

In prosecuting the researches which resulted in his volume on "Railroad Freight Rates in Relation to the Industry and Commerce of the United States,"⁴ Dr. Logan G. McPherson, lecturer on transportation at the Johns Hopkins University, sought and obtained information directly from the traffic vice-presidents and freight traffic managers of the railroads, the traffic experts of great industrial and commercial corporations, and the shippers' organizations of the various cities, and from individual shippers. In this survey the entire country was covered. To the general public the present freight-rate system is a mystery. Dr. McPherson has made a fairly successful attempt to elucidate the funda-

mental principles from which the system has been evolved.

The first part of the report of the Commissioner of Corporations on transportation by water in the United States⁵ has just been issued from the Government Printing Office. This part deals with the physical character of coast-wise and inland waterways, with the types of vessels, and with financial and legal conditions. For the most part these topics have heretofore received only superficial treatment and, considering the importance of the interests involved, it seems strange that authoritative data are so scanty. The information now for the first time published by the Bureau of Corporations is of the greatest value to shippers and all others interested in water transportation throughout the country.

In view of the journey down the Mississippi soon to be made by President Taft the little volume by John L. Mathews, entitled "Remaking the Mississippi,"⁶ has a timely interest. This book presents in a concise, interesting way a correct account of the several engineering methods by which each great division of the Mississippi has been so far developed, with a correct summary of the cost to date. The book is illustrated with striking photographs showing river conditions and what has been done to improve them.

A NEW BOOK ABOUT INTENSIVE FARMING.

"The Garden Yard"⁷ is another helpful contribution by Bolton Hall to the current popular discussion of intensive farming. No one need be deterred from perusing Mr. Hall's books by any dread of technical writing. His books are addressed to the "plain man and woman," and are intended to show how a living may be made on small resources in the way of land or equipment. "The Garden Yard" is a handbook of practical suggestions.

THE CATHOLIC ENCYCLOPEDIA.

The fifth volume of the "Catholic Encyclopedia"⁸ carries the work into the letter "F" of the alphabetical arrangement. While only one-third of the complete work has as yet reached the stage of publication, the general reader is able to form a fairly intelligent opinion of the range of topics covered by this very learned work, which traces the rise and growth of the Catholic Church, explains its doctrines and dogmas, gives the meaning of its ceremonies and usages, expounds its philosophy, relates its biography, and in general shows the influence of the Church on the progress of the world, past and present. Among the specific topics discussed in this volume are "Egypt," "Evolution," "Education of the Blind," "Eastern Churches," "Divorce," "Fasting," "Divination," "Excommunication," and "Conservation of Energy."

¹ Fifty Years of Darwinism. Henry Holt & Co. 274 pp., ill. \$2.

² Darwin and Modern Science. Edited by A. C. Seward. Putnam. 595 pp., ill. \$5.

³ Railroad Promotion and Capitalization in the United States. By Frederick A. Cleveland and Fred Wilbur Powell. Longmans, Green & Co. 368 pp. \$2.

⁴ Railroad Freight Rates. By Logan G. McPherson. Henry Holt & Co. 441 pp. \$2.25.

⁵ Transportation by Water in the United States. Part I. Washington: Government Printing Office. 614 pp.

⁶ Remaking the Mississippi. By John L. Mathews. Houghton Mifflin Co. 265 pp., ill. \$1.75.

⁷ The Garden Yard. By Bolton Hall. Philadelphia: David McKay. 321 pp., ill. \$1.

⁸ The Catholic Encyclopedia. Vol. V. New York: Robert Appleton Company. 795 pp., ill. \$6.

The American Review of Reviews.

EDITED BY ALBERT SHAW.

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With illustrations.			

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THE LATE GOVERNOR JOHN A. JOHNSON OF MINNESOTA.

(Governor Johnson, who died on September 21, was born of Swedish parents at St. Peter, Minn., July 28, 1861, and was therefore forty-eight years old. He made his way by his own efforts and in due time became editor of a paper in his native town. He became recognized as a man of mark, and served his district in the State Senate. He was elected Governor in 1904, and again in 1906, as a Democrat in a Republican State. His election was the more remarkable because the Roosevelt national ticket carried Minnesota sweepingly in 1904. He was again elected Governor in 1908 on the same day that the national ticket headed by Mr. Taft carried the State by a large plurality. He was a man of attractive personality and fluent speech, and was favored by many Democrats for the Presidential nomination last year.)

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No. 4

THE PROGRESS OF THE WORLD.

*Great
Happen-
ings.*

The month has been full of interest from the standpoint of public news. Foremost stands the announcement of the success of two American explorers in their brave attempts to reach the North Pole. Dr. Cook emerged first, and duly arrived at Copenhagen, where at our cabled request Mr. Stead procured from him the extended statements for exclusive publication in this issue of the REVIEW, which our readers will find in subsequent pages. Soon after the Cook announcement came that of Commander Peary, of the United States Navy. The great news event of the world of finance and business was the death of Mr. Harriman, an analysis of whose character and business methods will also be found in this magazine. As our pages closed for the press the city of New York and the people along the Hudson River were about to begin their elaborate commemoration of the three hundredth anniversary of the discovery of the noble river by the man whose name it bears and of the beginnings of steam navigation, a little more than a hundred years ago, with the successful experiments of Robert Fulton. The city of New York was also about to enter upon one of the most important Mayoralty contests in its entire history. In national politics the chief thing was the series of speeches, beginning with the one at Boston, made by President Taft in his great westward journey; and chief of these was his tariff speech at Winona, Minn., in Congressman Tawney's district. While Mr. Taft was in Minnesota, Governor Johnson, of that State, lay in a hospital in a critical condition following an operation. In spite of his painful and dangerous illness, he sent messages of the kindest greeting to President Taft, who responded with every expression of sympathy and appreciation. Unfortunately, Governor

Johnson could not summon strength enough to carry him through the period of weakness following the surgical treatment and he died on the morning of September 21. He was greatly beloved by men of all parties and classes in his State and widely mentioned by Democrats throughout the country as a probable future nominee for the Presidency. He had been three times elected Governor by great majorities in a strongly Republican State.

*The
North Pole
at Last.*

By far the most important news of the month of September, news most dramatic in its significance, in that it had been awaited for more than a century and a half by the entire world, was contained in the reports that came flashing by cable and "wireless," first, from the far off Shetland Islands, and, second, from Northern Labrador, informing a unanimously interested world that at last the North Pole had been reached, and by two American citizens. On April 21, 1908, according to his own story, Dr. Frederick A. Cook, accompanied by two Eskimos, finally attained the point sought by so many brave explorers for five generations, where there is no direction but south, where latitude reaches its maximum and longitude vanishes,—the North Pole. On April 6, 1909, fifteen days less than a year later, Commander Robert E. Peary, with Matt. Henson of his crew and one Eskimo, also reached the "boreal center," and another of the great world achievements had been credited to American courage, endurance, and enterprise. Just what this discovery means to the world,—the scientific results of both expeditions as known from the first published accounts of their deeds by the explorers themselves,—we give to our readers on another page in a judicial, informing article by Mr. Cyrus C. Adams.



"WAITING TO BE WON."

(The above cartoon by the late Sir John Tenniel appeared in *Punch* in 1875 apropos of the British official Arctic expedition that sailed on May 29 of that year, under Captain Nares. The title should now be, "Won at Last!")



Photograph by Brown Bros.

Mrs. Cook.

Mr. Bradley.

Dr. Cook.

DR. COOK LANDING AT NEW YORK, ON SEPT. 21.

*Two
Heroic
Personalities.*

Despite the publicity given to his different expeditions to the Arctic, Commander Peary is not a well-known figure to the American people. Peary the man and the qualities that have gone to make up his heroic, patient, human personality form the subject of another of our features this month, to which we commend our readers' attention. This REVIEW has followed Peary's career closely and published more than one article describing his explorations, notably, in February, 1898, July, 1901, and July, 1905. Dr. Cook, although not a new man in the field of polar exploration, is much less familiar to the reading world than is Commander Peary. In this magazine for January, 1907, we published an article by Prof. Herschel C. Parker, describing Dr. Cook's most noteworthy feat up to that time, the scaling of Mount McKinley, "the crest of the continent." His truly astounding story of the attainment of the long coveted goal of explorers, the North Pole, made him a world figure of most dramatic interest when on September 4 he landed at Copenhagen, the Danish capital, after his

trip from Upernivik, Greenland. There are very few, if any, writers of world news who could so readily appreciate and absorb such a situation and so graphically and dramatically portray the man Cook, who had so caught the imagination of the world, as Mr. W. T. Stead, who writes our article.

*The New
Question for
the Prince of
Denmark.*

Commander Peary's report of his dash to the Pole, presented as it was in the clear, convincing terms of the scientific man and coming as it did from an explorer whose devotion to scientific accuracy and whose personal integrity have never been questioned, even by the suspicion of a doubt, was instantly accepted by scientists of Europe and this country. It was no disrespect to Dr. Cook, a comparatively new man in polar exploration, that the world reserved final judgment on his exploit until he had given out the evidence of his accomplishment and the fuller statements with which to confirm the assertion that he had reached the Pole. The benefits to science from Peary's expedition as set forth in our article entitled "The North Pole at Last" are un-

doubted and cast imperishable glory upon Peary's name. It is natural enough that he should be disappointed, on reaching civilization, after his finally successful effort, to learn that another man, less experienced and less prepared than himself, had first attained the coveted goal. Furthermore, it seems probable that the newspaper reports attributed to Peary, making him out an accuser of Dr. Cook as an impostor, were either exaggerated or based on the publication of private communications never intended to appear in print. In his first authorized newspaper interview (at Battle Harbor on September 19) Commander Peary admitted:

Cook went eighty miles to the west of my course, and a year in advance of me. I will say it is quite possible for hundreds of other expeditions with equipments like mine to have gone to the Pole on routes different from mine without my having discovered any trace of them.

Dr. Cook's demeanor and attitude have been admirable throughout. The world will judge both explorers on their records.

*How the
World Got the
News.*

It is doubtful if any other achievement of man was ever so rapidly, fully, and graphically described to an entire world awaiting with breathless interest as the winning of the Pole by these two citizens of these United States. Seldom has the efficiency of the cable, telegraph, and Marconi lines been so strikingly demonstrated as in the rapidity with which the news of Dr. Cook's and Commander Peary's arrivals on the confines of civilization from the frozen wastes of the North were flashed to the great American and European daily newspapers. The cable communications between this country and Europe are, of course, of long-tried and proven efficiency, but the world was surprised at the number and excellence of the telegraph lines crossing Northeastern Canada and Newfoundland, as demonstrated by the almost hourly news from Commander Peary during his stay at Battle Harbor, Labrador. On another page this month (425) we print a map, reproduced from one specially prepared by the Dominion Government, showing how the news from Peary reached the world.

*The
Explorers
Come Home.*

The first actual interview of American and Canadian newspaper men with Commander Peary, which was printed in the metropolitan dailies of September 19, and which was full of vivid and graphic writing, gave a clear description of Peary's appearance on his re-

turn. With the description of Dr. Cook's personality given on another page by Mr. Stead, compare these sentences about Peary.

He stood there a tall, loosely knit man, whose chest tightened the blue flannel shirt about it and whose bared head was kept stiffly erect. He had his feet and legs in rubber sea boots, into the tops of which his trousers were tucked. Nothing covered his shirt. His reddish gray hair was straggling down to a ruff behind his ears and his mustache was frayed at the ends into two furze brushes. His stubby cheeks were cut in downward furrows.

The story of Dr. Cook's reception at Copenhagen and the honors conferred on him by the Danish Government and the visiting scientists from all over Europe are set forth on another page by Mr. Adams. Honors even more grateful to the explorer were showered on him on his arrival in New York on the morning of September 21. A very impressive and hearty welcome was accorded Commander Peary upon his arrival at Sydney, the capital of Cape Breton Island. From there it was hoped that he would sail at once to New York, reaching this city in time to have the *Roosevelt* participate in the Hudson-Fulton celebrations.

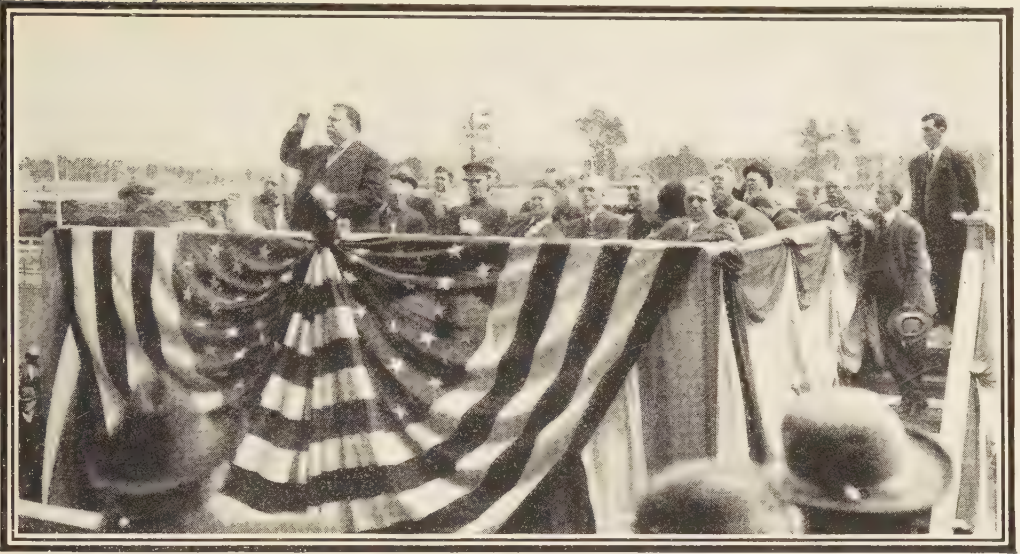
*Mr. Taft's
Speaking
Ordeal.*

The most notable quality in Mr. Taft's speeches has been frankness. He did not start upon his 13,000-mile tour with a bundle of speeches prepared in advance, but he had undoubtedly



GETTING THERE WITH BOTH FEET.

From the *Eagle* (Brooklyn).



Photograph from Paul Thompson.

PRESIDENT TAFT AT THE WISCONSIN STATE FAIR LAST MONTH.

given due consideration to the essential things he meant to say at important places. He was entering bravely upon a great ordeal of speechifying. He spoke at Boston on the evening of September 14. His chief topic was the monetary situation; and while not directly committing himself to the central bank of issue, Mr. Taft seemed to favor the point of view of Senator Aldrich and Mr. Vreeland. He gave Mr. Aldrich a hearty and even enthusiastic personal indorsement. Mr. Taft hopes to see the American monetary and banking system reformed during his administration through the efforts of the Aldrich Monetary Commission. At Chicago, on September 16, he spoke finely and strongly of the law's delays and the need of a reform in our administration of justice. He also reasserted his attitude toward labor. At Milwaukee he advocated postal savings banks, in the face of the opposition to such a policy that was being expressed on the same day by the bankers of the United States in their national convention at Chicago. On the night of the 17th the President spoke at Winona, Minn., upon the tariff.

*The
Notable Tariff
Speech.*

Every thoughtful reader and student of the tariff question must judge Mr. Taft's Winona speech for himself. It is one of the most careful political utterances that Mr. Taft has ever made. It is fair to say that the country was surprised at the extent of Mr. Taft's approval of the Payne-Aldrich law. It would

seem to us a more sweeping approval of the new tariff than had yet been made by any of the leaders who were responsible for its formulation and its passage through Congress. Mr. Payne fought desperately against many of the compromises he was compelled to accept, and Mr. Aldrich never forgot that a tariff bill is really made by hundreds of striving and contending interests and that from beginning to end it is a patchwork of trades and compromises. Mr. Taft was never criticised in any serious or responsible quarter for signing the bill. Not to have signed it would have created confusion. His active interest in the details of the tariff began when the bill was in the final conference stage. His personal demand for certain reductions was what turned the scale and secured them.

*The
Real
Lesson.*

But if it had not been for the way in which the so-called progressives or insurgents had pointed out certain iniquities and stirred up the country Mr. Taft could hardly have gained those points of reduction for which he made his stand. There may have been some people who thought that the iniquities of the wool schedule and some other of the glaring faults of the Payne-Aldrich bill should have led to a veto. But no element of the Republican party expected or demanded any such action by the President. Certainly the insurgents did not ask it. The one great lesson that the country ought to

have learned from the work of the recent extra session is the lesson that it is a great mistake to deal with so elaborate a thing as the tariff without scientific study and accurate knowledge. Congress is competent to deal with the reports of economic experts and tariff commissions, but it is not competent to make a good tariff without the use of scientific methods for obtaining and collating needful facts. Mr. Taft is right in deprecating the idea of an immediate reopening of the tariff schedules by the next Congress, or even the one to follow. Certain schedules, indeed, might be taken up, but the country wishes to do business and does not wish another tariff session of Congress in the near future. But it would seem as if Mr. Taft's courage and frankness might have gone a little further and allowed him to say that we are in a good deal of danger of an early reopening of the tariff fight through the failure of Congress, in this recent extra session, to revise the wool schedule and to do certain other things that unquestionably belonged to the task that the Payne-Aldrich committees had before them.

*Why We
Need a
Commission.*

While, then, it is true that the business interests of the country would deplore a crude and immature attempt on the part of the next Congress to repeal the new tariff, it does not follow that wise business men should tolerate the refusal of Congress to provide a proper way for future dealing with the subject. If we can have the right kind of a tariff commission, it may be possible to bring about the more thoroughgoing tariff revision of the inevitable future in a scientific way and without harmful agitation and disturbance to business. If we are denied a proper kind of tariff commission, we shall have the tariff remain as a political football, to the damage of our legitimate business interests and to the disgrace of American statesmanship. The fight for a commission must go on.

*As to
Party
Allegiance.*

The newspapers seem to take the ground quite generally that Mr. Taft meant to read out of the party the Republican Senators who thought it best to show their disapproval of the bill by voting against it. We do not believe that Mr. Taft meant to have his speech taken in that way. He was attempting to justify his own action in signing the bill and to assist Congressman Tawney in his effort to retain the support of his somewhat disappointed

constituents. Mr. Tawney's right to exercise his own judgment and to vote for the bill would seem clear. The chairman of the Appropriation Committee is usually found aligning himself with the majority of his party on great measures. Mr. Tawney was one of the men who did the wheel-horse work in drafting the Dingley bill, and he would undoubtedly have made the Payne bill much better than it is if he could have had his own way. But Senators Nelson and Clapp, as well as every Minnesota member of the House, except Tawney, had an equal right also to interpret party pledges and duties in their own way and to vote,—as they all did,—against the tariff bill when it finally came from the hands of the Conference Committee. The so-called insurgents well knew that their voting against the bill would not prevent its becoming a law. They knew that it was going to pass and that Mr. Taft was prepared to sign it. But they felt that it would be a right and a useful thing for them to vote against the bill as showing to the whole country their belief that the time had come when tariffs ought to be made in a different way.

*Its "Too
Intimate"
Friends.*

Mr. Taft, in his Winona speech, argues as if it were a question of high rates or low rates or the protection principle. But when one gets deep into the tariff question, as these Senators did, the actual issues are quite different. As one of them puts it privately, however much may be said for having the tariff "revised by its friends," there now seems to be a good deal against having it "revised by its *too intimate* friends." Enormous pressure was, in fact, put by private interests upon some of these so-called insurgent Senators to get them to fall in with the prevailing majority. It would seem hardly likely that Mr. Taft really intended in his indorsement of the tariff work of the extra session to call upon the Republicans of the Middle West to repudiate such Republican leaders as cannot conscientiously praise that piece of legislation. Just what the new tariff bill really is our readers had an opportunity to know through the expert analysis of the bill published in this magazine last month. That analysis has been widely reproduced by the daily press and much commented upon; and, so far as we have seen, no one has arisen to deny the accuracy of its statements or to refute the method by which the writer of our article proved that the Payne-Aldrich law is



Photograph by Matzene.

MR. ALVIN H. SANDERS.

Photograph by Clinedinst.

MR. JAMES B. REYNOLDS.

Photograph by Paul Thompson.

PROF. HENRY C. EMERY.

THE MEMBERS OF THE NEW TARIFF BOARD.

"revision upward" and *not* "revision downward." Just why Mr. Taft should appear as a more unqualified advocate and supporter of the new law than any of the men who drafted it or any of the attorneys for special interests who secured what they were after is a little hard to understand.

*Not Quite
the "Best
Ever."*

It is one thing to explain and defend one's acceptance of a compromise measure like a tariff bill and it is quite a different thing to hold it up for laudation as the "best ever." Mr. Taft says that this bill is the best tariff that the

Republicans ever made and therefore the best that the country has ever had. But this kind of characterization of a tariff must always have reference to the conditions existing in the trade and commerce of the country at the time when the bill was enacted. It does not seem to us that the Payne-Aldrich bill, when tested by its responsiveness to conditions existing in the year 1909, can compare favorably with the Dingley tariff or the McKinley tariff when those enactments are studied in the light of the conditions that produced them in their respective years. In other words, the tariff tailor made Uncle Sam a better-fitting suit in 1890 and again in 1897 than he has just made in 1909.



PAINTING THE LILY!

From the *World* (New York).

*The
Tariff
Board.*

Mr. Taft has alluded in his speeches to the work of his new Tariff Board as something that is to provide us with data for future tariff legislation. Yet Congress specifically refused to make it a part of the work of these tariff experts to conduct such inquiries for the benefit of Congress. The Tariff Board is authorized to aid in the application of maximum and minimum rates to foreign countries and in the administrative work of the law. The chairman of the Tariff Board is Prof. Henry C. Emery, of Mr. Taft's own college, Yale. Another member is Mr. James B. Reynolds, who resigns as an Assistant Sec-



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EDWARD HENRY HARRIMAN, WHO DIED SEPTEMBER 9. (SEE PAGE 465.)

retary of the Treasury to enter upon the new work. The third member of the board is Mr. Alvin H. Sanders, of Chicago, editor and proprietor of the *Breeders' Gazette*. These three men are of such high personal standing and such recognized fitness that no one can doubt Mr. Taft's intention to obtain

as valuable results from his opportunity to name such a board as the law will allow. But it is to be feared that the work which otherwise these gentlemen might do so valuably for the business welfare of the country will be hampered by the law under which they are named.



MR. ROBERT SCOTT LOVETT.

(Photographed last month for the REVIEW OF REVIEWS, by the Misses Selby, New York.)

*Mr. Harriman
and His
Successor.*

Mr. Harriman's death was a surprise to the country, because the serious nature of his malady had not been known. He had made a brave fight for his life and had in failing strength kept his hand upon the levers of great business enterprises. It is not likely that his Napoleonic and absolute methods will prevail in the American railway management of the future. His empire has not yet been

torn with dissension by rival claimants for the mastery of any part of it. Mr. Robert S. Lovett, who had for some years been Mr. Harriman's closest business adviser and who was vice-president and general manager of the Union Pacific Railroad Company, was at once chosen unanimously to take Mr. Harriman's place as chairman of the executive committee of that company and also to fill a like position in the management of the

Southern Pacific. Mr. Lovett is a Texan who has made his way in practical railroad-ing and in railroad law through indomitable force of character and native strength of intellect. He is trusted and respected by all who have had business relations with him. His emergence to a great position in the public eye is another illustration of the fact that there is usually in process of training for the high posts of responsibility men who have not been found wanting when trusted in lesser commands. The stock market was much less affected by Mr. Har-riman's death than most observers would have expected. Leading financial interests all co-operated to sustain confidence and make a show of harmony. There is great eagerness to know what some of the future policies of the Union Pacific will be, particularly as regards the question of the segregation of its great holdings of the securities of other railroad companies. Although the demand for money in mercantile and manu-facturing lines and for moving the crops is naturally increasing, there has remained enough surplus funds in the New York banks to facilitate stock speculation, and the high level of prices was maintained last month. Industrial securities especially showed marked advance, due to their im-proved earnings and prospects for handsome dividends in the early future.

About
Banks and
Currency.

The recent meeting of the Amer-ican Bankers' Association at Chi-cago made it plain enough that we are not to have a thoroughgoing and consistent revision of our monetary system by unanimous consent. Upon no point in-volved is there a marked consensus of opin-ion. The bankers are opposed to any scheme of governmental savings banks and are also generally opposed to extending the powers of the national banks so that they may have savings departments. The Chicago conven-tion was bitterly opposed to the idea of the guaranteeing of deposits. Speaker Cannon, who appeared before the convention, defend-ed our present system as a whole and op-posed radical changes. There had been bitter attacks by Mr. Fowler, of New Jersey, upon Mr. Cannon as incompetent to deal with monetary subjects and Mr. Cannon made his reply at Chicago. Mr. Fowler had long been chairman of the Currency Committee and Mr. Vreeland, of the Mone-tary Commission, has been put in his place by the Speaker. Mr. Fowler has been nat-urally resentful. All of which means that there lies ahead of us a period of hard de-bating and much difference of opinion upon currency and banking reforms. President Reynolds, of the Bankers' Association, made a great plea for a central bank with a capi-tal of not less than \$100,000,000 to control



From the *Sun* (Baltimore).



From the *Times* (Washington).

IT WAS AN AWFUL CASTIGATION.

(Congressman Fowler, of New Jersey, wrote an open letter to Speaker Cannon on August 23, severely criticising the Speaker for his attitude on legislative measures in Congress. Mr. Cannon replied last month in a speech at Chicago.)

the issue of notes and the banking reserves of the country. Such a system would be in a general line with the experience and practice of other countries. Mr. Reynolds is a distinguished Chicago banker, who was invited by Mr. Taft to become Secretary of the Treasury. He is succeeded in the presidency of the Bankers' Association by Mr. Lewis E. Pierson, president of the Irving National Bank, of New York City. We have now developed in this country a great number of able and thoughtful bankers who are not merely private money makers but men of a high sense of public duty and thoroughly competent to advise us regarding the best way to manage our banks and our currency. Undoubtedly Mr. MacVeagh, Secretary of the Treasury, is in general sympathy with these progressive views of the foremost bankers, and undoubtedly Mr. Taft was entirely sincere commending the earnestness and good faith of Senator Aldrich in his work as head of the Monetary Commission. But it is also evident that the President and his Cabinet realize that currency reform cannot be dealt with this year or next, but must go over to the year 1911.

*Railroad
and
Trust Laws.*

The great subject that President Taft and the cabinet would like to bring forward at this coming session of Congress is that of a reconstruction of the laws relating to the control of interstate commerce by the federal government. Mr. Wickersham and the lawyers of the administration have been at work on this subject. In his speech at Des Moines on September 20 Mr. Taft gave some outline of proposed plans. One great trouble at present is the delay caused by carrying the decisions of the Interstate Commerce Commission into the federal courts. This appeal to the courts cannot be done away with, but Mr. Taft and the cabinet propose to create a special so-called Commerce Court of five members who shall sit at Washington and have jurisdiction in such matters. Mr. Taft would also give the Interstate Commerce Commission the power to readjust freight classifications as well as to fix rates, and in other respects would increase the commission's authority. He would regulate mergers and stock-watering by giving the Interstate Commerce Commission control of these matters. When it comes to the anti-trust law it is proposed to develop the Bureau of Corporations into an agency having a greater power of supervision and regulation, while



Photograph by Davis & Eickmeyer, N. Y.

MR. LEWIS E. PIERSON, OF NEW YORK.

(The new president of the American Bankers' Association.)

transferring to the Department of Justice those functions having to do with inquiry into violations of the law with a view to punishment of offenders. In a general way, the Taft administration would make the anti-trust law forbid combinations, conspiracies, and contracts to restrain trade with intent to monopolize interstate trade or with intent to suppress competition therein. The idea is to get rid entirely of the question whether combinations are reasonable or unreasonable. It is intended to press these amendments of the interstate commerce and so-called anti-trust laws upon the attention of Congress this coming winter for thoroughgoing revision. If the excellent proposals of the administration can be placed upon the statute books, it will be a great triumph, and will atone somewhat for the faults of the tariff.

*Steel Mills
in
Full Blast.*

The regained prosperity and business activity of the country, of which we noted some evidences last month, are strongly witnessed in the month's news of the basic steel and iron industry. The United States Steel Corporation is operating at over 96 per cent. of its capacity, very large orders for equipment are pouring in from the railroads, and prices are advancing. That they will advance precipitately is scarcely probable because of the still depressed state of the industry in Europe. With the small consumption there and with the lower tariff barriers any radical increase in prices of steel products would be the signal for extensive imports. But even at the present prices the Steel Corporation promises to earn nearly eighty million dollars net profit in the last six months of 1909. The price of the common stock has made new high records almost daily, reaching 84 in the middle of September. In the great boom of 1906 the stock sold not higher than 50. It is confidently predicted that the dividend on this common issue will be raised to 4 or 5 per cent. at the October meeting.

*The
World's Ore
Supply.*

Before the close of the year the Steel Corporation will be manufacturing at the rate of 13,000,000 tons a year, with every sign pointing to a further increase of output in 1910. There is widespread discussion of a scarcity of iron ore in a not distant period. A German writer has recently made a striking analysis of the situation, which shows that the world will consume an average of 180,000,000 tons of ore yearly for the next ten years, this being based on a consumption of crude iron of 60,000,000 tons annually. The largest in-

dividual field of high-grade ore in Sweden would only supply the world's demand for five or six years at this rate and the entire world's resources of high-grade ore, as estimated by Swedish experts, for about sixty years. It is highly probable, of course, that new fields will be discovered, and it is quite certain that lower grade ores would be used if the richer fields should give out, but it is also true that in succeeding decades consumption may still further increase, and there are not wanting prophets of coming trouble for the industrial world due to a scarcity of iron.

*"Conservation"
in
Dispute.*

As to this country, the world looks on at our furious and reckless expenditure of natural resources with increasing comment of disapproval. It is just at this moment, when in so many ways we are needing to conserve our natural resources and to protect the public interest, that a new controversy has arisen regarding the so-called Roosevelt policies of protection to public forests, prevention of fraud in the acquisition of public coal lands by private companies, and protection of water powers within the public domain from being grabbed by the so-called water power trust, with its insatiate ambition. Speaking in a general way, the administration of our land laws has for several decades been rendered difficult by the never-ceasing attempts of private individuals and companies to obtain control of water rights, grazing ranges, agricultural soil, mineral areas, public forests, and so on, by dishonest methods. Mr. Garfield, as Secretary of the Interior, following the unflinching Hitchcock in that same office, worked with energy and efficiency to protect the public domain. Various conspiracies have been exposed and broken up within the past eight years, and if only Congress would pass better land laws there would be good ground to believe that a measurable degree of honesty might be made to prevail in the further process of turning over public areas to private ownership.

*Pinchot,
Public
Servant.*

The greatest champion of the policy of conservation of resources that the country has produced is Mr. Gifford Pinchot, chief of the Forestry Bureau of the Agricultural Department. Mr. Pinchot's work for the public welfare is so indefatigable and his character and motives are so high that nobody but a fool or a knave would venture an attempt to disparage either the man or his

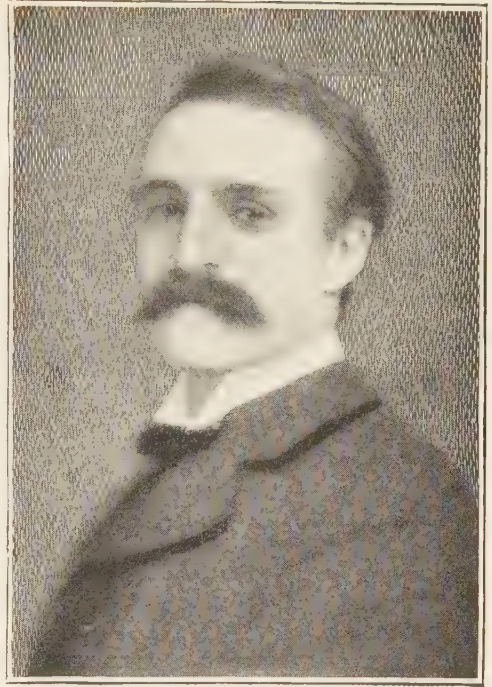


PRESIDENT TAFT: Uncie, you should start a savings bank; he would trust you.

From the *Spokesman-Review* (Spokane).

work. It is the belief of the country that in the matter of conserving public resources the Government should not be put in the position of a defendant. The greedy companies that have been trying through dummy entries to get control of coal lands and forest lands will have ample resources and able attorneys with which to push their ingenious claims. If Mr. Pinchot in his zeal for the public welfare should ever through error do injustice to any private claimant there is no danger that such a claimant would fail to get his hearing both with administrative officers and also in the courts. The cold fact is that it is the Government and the public interests that have been despoiled; and it is very far from the truth to say that private and local interests have been sacrificed in the pressing forward of the so-called

•Roosevelt and Pinchot policies. The forest resources of the Indian reservations had been turned over to the Forestry Bureau for administration. Mr. Ballinger, as Secretary of the Interior, on legal grounds withdraws this work from Mr. Pinchot's supervision. If Indian agents can be found who will administer forests better than the members of the Forestry Bureau, then this decision will be acceptable. But the country will not be ready to believe that the Forest Service is badly run, or that Pinchot should in any way be discredited. His work is necessary, and demands support.



HON. GIFFORD PINCHOT.
(Chief of the Forest Service.)

^A
*Question of
Attitude.*

The country is not bothering about details or technicalities. Unfortunately, it has obtained the impression that in a very subtle and roundabout fashion the colossal private interests that were so hostile to Garfield and Pinchot, and, of course, to Roosevelt have been at work upon the sympathies of the new administration so as to produce a different atmosphere. There is an impression that Ballinger and Taft are, almost unconsciously to themselves, being influenced by certain men, who in turn are subject to the influence of the agents of the water-power trust and the other selfish factors in the controversy. Nobody wishes Mr. Ballinger or Mr. Taft to go against the requirements of law; but they have been put in their positions to see how far the law will let them go in aggressively protecting public interests against private greed. The private interests will find their own lawyers and deserve no help from the brilliant legal galaxy that surrounds the council table of the present administration.

*Ballinger
and His
Opportunity.*

There ought to be no doubt about the eagerness of the high officials of the Government to carry out to the very utmost the principles of the conservation policy. Mr. Ballinger, though not so well known, is a man of the same high class as his immediate predecessors. Mr. Taft has been part and parcel of the policies of the last decade. The country would be deeply disappointed if these great lawyers should fail to use their training and experience to help the Pinchots get their commendable projects carried to a successful issue. In the matter of a field agent of the Land Office who seemed to reflect upon Secretary Ballinger's honor and good faith in dealing with Alaska coal claims, no one for a moment would question the justice of Mr. Taft's decision. Mr. Ballinger stands fully cleared, and the field agent has of necessity been dismissed from his position. None the less, the public ought to understand how difficult is the work of the man sent out into the field to check up the public land cases and get legal evidence in case of frauds. It is thankless work, and our Government service has been honored by men of heroic courage who have faced every kind of danger in trying to bring to book the scoundrels who are constantly at

work stealing the resources of the American people. Mr. Ballinger has the opportunity to back them up with all his might.

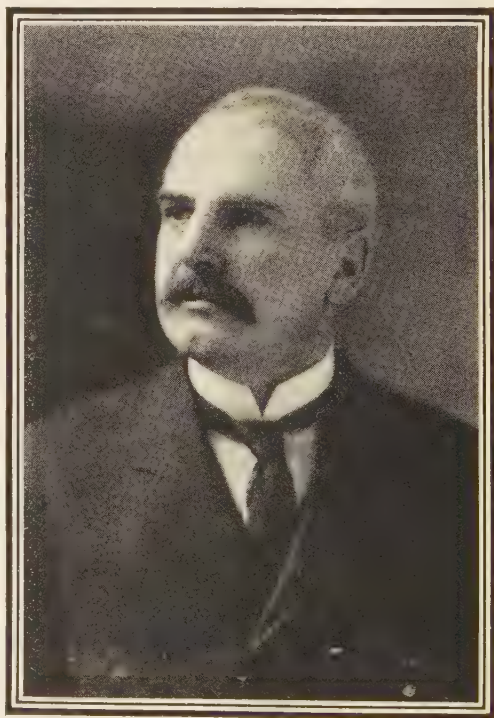
*Co-operation
Is to Be
Desired.*

At the great Conservation Congress held in Seattle late in August Mr. Pinchot presided and made a noteworthy address. Ex-Governor Pardee, of California, succeeded in securing the adoption of a resolution favoring a time limit on the grant of water-power sites and the taxation of such grants. Secretary Ballinger spoke at the conference briefly but pointedly, and declared that he would prefer to be judged by his acts and official conduct rather than by words and promises. Mr. Pinchot predicted that at the coming session of Congress we are to have a great fight to protect the people's rights against the monopolies that are trying to grab the remaining water-powers. While we believe the whole country owes a debt of gratitude to Mr. Pinchot for his patriotic services, we must also express our complete confidence in the Secretary of the Interior,—in his public spirit as well as his intelligence and efficiency. We believe that Mr. Ballinger has the same high motive and the same disinterestedness as Mr. Pinchot. The administration of Indian forests involves a legal question as to the right to divert funds and authority from one department to another. It is entirely feasible to utilize to the best advantage for the public welfare the zeal of a Pinchot and the precise and efficient administrative methods of a Ballinger.

*The Work of
the State
Department.*

One of the most important practical topics that can engage the attention of Congress is the promotion of frequent communication with South America. Under the new tariff our South American trade ought to grow rapidly, and with the Panama Canal well advanced it is high time to be considering the trade relations of our Atlantic and Gulf seaports with the western ports of South America. The State Department has established a Latin-American bureau, with Mr. Thomas C. Dawson, of Iowa, at its head, who will, accordingly, resign from his post as Minister to Chile. Mr. W. T. S. Doyle, of Washington, also an expert upon South American matters, enters the bureau. It is evidently Mr. Knox's intention to follow up the work of Secretary Root and promote in every way mutually beneficial relations between this country and the southern republics. Another

important matter relating to the State Department is the creation of a new office known as Counselor. Mr. Knox has from the beginning desired to have associated with him Mr. Henry Hoyt, recently Solicitor-General, one of the ablest lawyers and most efficient public servants who have been in the Government's employ. Mr. Hoyt as Counselor of the State Department will have much to do with the negotiation of treaties, and will devote himself especially to the framing of the new treaty with Japan. Mr. Knox is also creating a Far Eastern Bureau to foster from the standpoint of his department our commercial and diplomatic relations with the Orient. Another new bureau in the State Department is that called Trade Relations on the Tariff. Mr. Charles M. Pepper and Mr. M. H. Davis, both of them experts in matters of foreign trade, have been assigned to this bureau. Mr. Knox is planning to be with President Taft at the famous meeting with President Diaz, of Mexico, on October 16 at El Paso, Texas. Messrs. Dickinson, Hitchcock, and Nagel, of the Cabinet, are also expected to be present. Elaborate plans have been made and the ceremonies will interest the people of both republics.



HON. THOMAS C. DAWSON.

Treasury Problems.

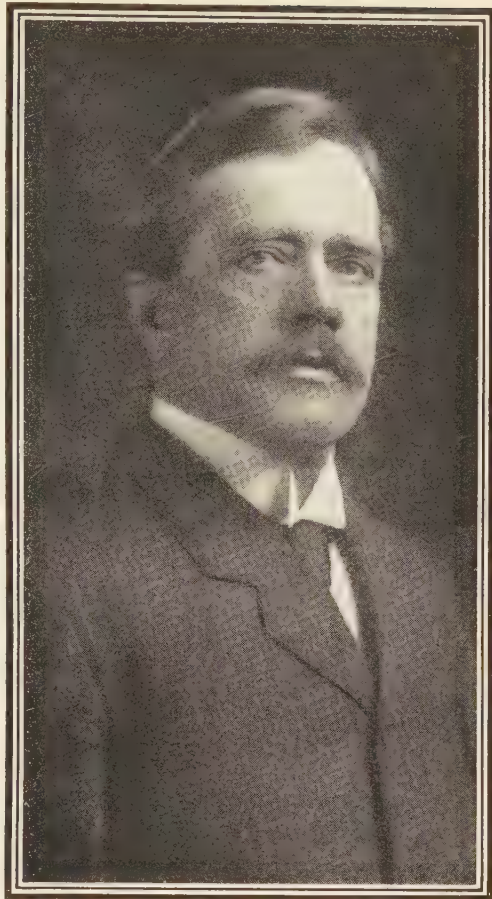
Secretary MacVeagh is fortunate in the able young men with whom he has been surrounding himself in the Treasury Department. His assistant secretaries are men of knowledge and skill, and at critical posts he has strong men. Mr. Loeb, who collects about half of the revenue of the Government at the New York Custom House, has been enforcing the law and doing his duty in spite of criticism. Mr. Cabell, of Richmond, Va., whose appointment to the head of the Internal Revenue Bureau we mentioned last month, has to be responsible for the somewhat perplexing task of collecting the new corporation tax. With the new tariff regulations and this wholly novel 1 per cent. tax upon the net earnings of corporations, the Treasury Department has many delicate matters to decide, and it is dealing with them intelligently.



Photograph by Moffett, Chicago.

MR. ROYAL E. CABELL.

(The new Commissioner of Internal Revenue.)



MR. HENRY HOYT.

(Counselor of the State Department.)

*Democrats
in
Council.*

A several days' conference of Democrats at Saratoga ended on September 10. Several hundred Democrats of the State of New York were present. The Hon. Edward M. Shepard was permanent chairman. Mr. Herbert T. Bissell, formerly of Mr. Cleveland's Cabinet, was a prominent man in the conference, and Mr. Morgan J. O'Brien, Mr. Alton B. Parker, Mr. D-Cady Herrick, Mr. Thomas Osborne, Mr. Herman Ridder, Mr. Augustus Van Wyck are a few names that will indicate the character and quality of the gathering. There is nothing that the Republicans of the State of New York so much need as the opposition of a reformed Democratic party, led by the best men in the State who call themselves Democrats. The control of the party by the corrupt Tammany machine of New York City, in combination with the no less scandalous machine



Photograph by Paul Thompson.

FORMING A NEW DEMOCRATIC PARTY AT SARATOGA.

(Seated, Edward M. Shepard, Thomas M. Osborne, Morgan J. O'Brien; standing, S. S. Menken.)

of Buffalo, is a disgrace to the name of a great party. A new organization was launched at Saratoga, known as the Democratic League of the State of New York. Its objects are patriotic and its appearance is to be welcomed.

*New
York's
Campaign.*

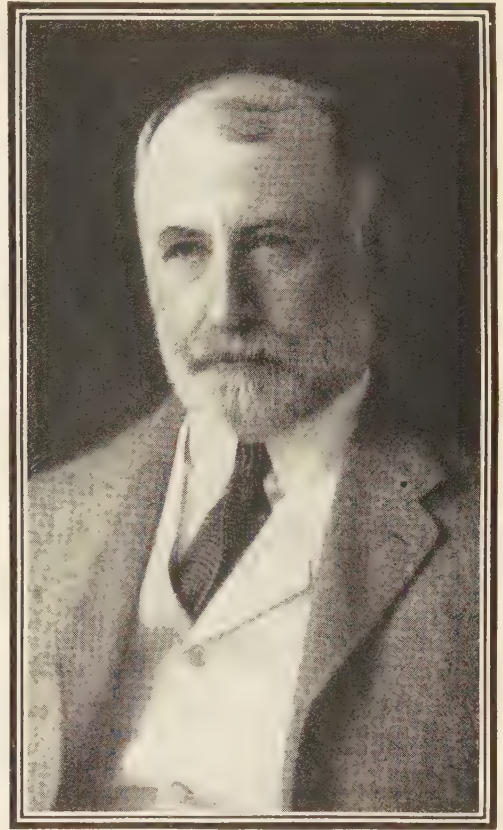
The campaign in the city of New York was destined to be a short one. The Fusionists found it hard to agree upon a candidate for Mayor and the action of Tammany Hall was much in doubt as we were closing these pages for the press. Judge William J. Gaynor, a well-known radical and independent of Democratic proclivities, famous for his attacks upon corporation methods, had been brought forward by certain independent organizations; and he had seemed to expect that he would be indorsed by Tammany on the one hand and by the Citizens' Union and the Committee of One Hundred on the other. But the anti-Tammany organizations were not willing even to consider Judge Gaynor's name, and it remained to be seen whether the Tammany convention, to be held on September 30, would accept the

militant Brooklyn judge, with his record of fierce denunciation of Tammany methods. Many excellent men were suggested for the Fusion nomination, but few of them were willing to be considered; and the choice was at length narrowed down to Mr. William M. Ivins and Mr. Henry L. Stimson. Mr. Ivins had been a recent Republican nominee for the Mayoralty, is at the head of Governor Hughes' commission for the drafting of the new city charter for New York, and is an authority upon all that relates to the city.

*Maryland
Franchise
Amendment.*

The people of Maryland are to vote next month on a proposed constitutional amendment which, if adopted, will have the effect of limiting the franchise. The following classes of male citizens, if qualified in respect to age and residence, will be admitted to the suffrage under this amendment: (1) Persons who on January 1, 1869, or prior thereto, were entitled to vote; (2) male descendants of such persons; (3) foreign-born citizens of the United States naturalized between January 1, 1869, and November 2, 1909; (4) male descendants of such citizens; (5) men who

own \$500 worth of property, or whose wives own that amount, on which taxes have been paid for two years. If the applicant for the suffrage cannot qualify in either of the above classes he is required by the amendment to make application in writing, stating in such application his name, age, date and place of birth, residence and occupation for two years preceding, the name or names of his employer or employers for two years preceding, and whether he has previously voted, and if so the State, county, or city, and district or precinct in which he voted last, and also the name in full of the President of the United States, of one of the Justices of the United States Supreme Court, of the Governor of Maryland, of one of the Judges of the Court of Appeals of Maryland, and of the Mayor of Baltimore, if the applicant resides in Baltimore, or of one of the county commissioners of the county in which the applicant resides. All this information must be written out by the applicant without aid, suggestion, or memorandum, and without any question or direction addressed to him by any of the officers of registration. That is to say, the applicant must not only know the things specified



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JUSTICE WILLIAM J. GAYNOR.

MR. OTTO T. BANNARD.
(Republican nominee for Mayor of New York.)

above, but he must remember the precise questions to which answers are required! This is a test not of literacy but of the voter's verbal memory. Such a test would be far harder to meet than any "educational" qualification heretofore adopted in any of the Southern States. If it was really invented, as is claimed by its opponents, for the purpose of disfranchising the colored vote of Maryland, it must inevitably react on its inventors.

Mr.
McKim.

Among an unusual number of men of distinction and usefulness who died last month Mr. Charles F. McKim was one of those whose loss is most deeply regretted. He was one of the foremost architects this country has produced, and we shall be indebted to his good taste in many ways for a long time to come. The national capital in particular will be the more beautiful for his efforts as a member of the commission which has worked out plans for the future placing of public buildings and the adornment of the city.



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THE LATE LIEUTENANT-GENERAL HENRY C. CORBIN.

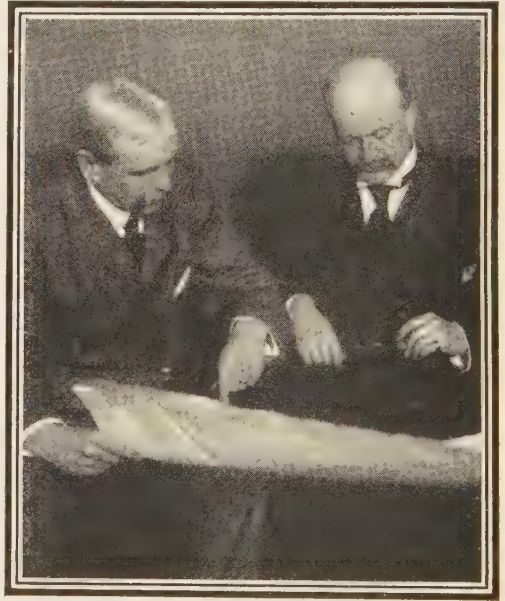
General Corbin. Lieutenant-General Henry C. Corbin, of the United States Army, retired, also died last month after an operation. General Corbin's military services and record are well known to the country. He had retired from the army in the possession of his physical powers and his mental strength, and had reason to hope for many years of enjoyment and usefulness. Among other things, he had definitely planned to use his leisure in carrying out the project of a beautiful highway from the city of Washington to George Washington's home at Mount Vernon. General Corbin was in a position both to raise the money from private friends for such an undertaking and also to see that the thing should be properly carried through from an engineering and artistic standpoint. What could be more fitting than that the friends of General Corbin should now take up this work to honor his memory?

Other Men of Note. Among other useful and famous Americans who have passed away was Mr. William Lloyd Garrison, son and namesake of the great anti-slavery leader, who was a business man of Boston, of independent and radical views, and with a heritage of courage and of gift

for strong speech. Mr. Mayo W. Hazeltine, who was one of our most accomplished historical scholars, was also our foremost of literary critics. Mr. Clyde Fitch had been our most versatile and ingenious playwright, and some of his dramas will undoubtedly have permanence.

The Value of Old Men.

When productive artists and authors like McKim and those others we have mentioned pass away while in the thick of their work there is a distinct loss to the country; and the death of useful public characters, like private bereavements, leads us all to welcome every advance in the work of medical research that aids in the prolongation of human life. Every time there appears some brilliant, piquant, and useful utterance from the pen of a veteran like Prof. Goldwin Smith or the Hon. John Bigelow, the thoughtful mind rejoices in the continued activity of men who have for so long a time instructed



MR. M'KIM (ON THE RIGHT) WITH HIS PARTNER, MR. MEAD.

and helped their fellows. Mr. Bigelow, who will be ninety-two years old next month, and is one of the most influential and vigorous minds that now serves New York, gave us some timely thoughts a few days ago upon the pollution of the Hudson River and the need of purifying it and preserving it in all its pristine virtue and beauty.

The Aviation Meeting at Reims

The spectacle presented to an immense gathering of visitors from all over the world at the aviation meeting at Reims during the last week of August was one which up to that time would have been thought of only as a fanciful prediction. The poet's "airy navies," though probably conceived with a long look ahead, came close to realization at Reims. Here were flying machines of various types and sizes, thirty-eight in number, some indeed,—like Latham's *Antoinette* monoplane, the most graceful of all,—looking like veritable birds, and all flying about under full control of their masters, sometimes six in the air at once, now high up until man and machine were a mere speck in the sky, and again skimming along the surface of the earth, maintaining their flights for long hours, and rising and descending at will. It was a magnificent demonstration of man's conquest of the air. Records were repeatedly made and almost immediately broken. Each day had its sensational flights and its hero. The principal prize went to an American, Mr. Glenn H. Curtiss, who won the International Aviation Trophy given for speed. He succeeded in completing two rounds of the course,—about twelve miles,—in less than 16 minutes, one round being accomplished at a speed slightly in excess of 47 miles an hour.

Some Record Flights.

Perhaps the most remarkable contest was that for length of flight. First Paulhan stirred the crowds to enthusiasm by a record-breaking flight of over 83 miles. But his triumph was brief. The next day Latham ascended in his monoplane and did not come down again until he had covered 95 miles. Latham again, however, was the hero for only a day, for in the gathering dusk of Friday evening of Aviation Week, Farman, the Englishman, went round and round the course until he had actually completed 118 miles, and remained in the air about $3\frac{1}{4}$ hours. This figure was reduced by the judges to 111.88 miles, inasmuch as the last circle of the course was made after the official time for recording had expired. Farman also won the passenger-carrying competition by taking two persons in his machine, besides himself, around the course at a speed of almost 35 miles an hour. The prize for achieving the greatest height went to Hubert Latham, the plucky Frenchman who twice unsuccessfully tried the Channel flight. He succeeded in attaining a height of 508 feet.

Other Aerial Activities

In addition to the International Aviation Trophy, Curtiss also won the first prize in the 30-kilometer speed contest at Reims. At the Brescia (Italy) aviation meeting Curtiss was again a successful contestant. He won the Grand Prize, for covering 31 miles in one flight; the first prize for quick starting, and the second prize in the height competition. Capt. S. F. Cody, who has been busily experimenting with aeroplanes for some time in the interest of the British Government, has at last achieved an extended cross-country flight, remaining in the air 1 hour and 3 minutes, reaching a height of about 400 feet, and traveling altogether about 47 miles. Orville Wright, in his exhibition flights at the Tempelhof Parade Ground near Berlin on September 17 broke Latham's record at Reims for height by reaching an altitude of 765 feet. The winning of the International Aviation Trophy by an American will, according to arrangement, bring the next great international aviation meeting to this country. Should progress in the science of flying proceed as rapidly as it has within the past few years we may look for even more wonderful aerial feats at this future assemblage of aviators and their machines.

The News from Mexico.

From the festivities attendant upon President Diaz's attainment of his seventy-ninth birthday and the elaborate preparations made to mark the occasion, when in the middle of the present month President Taft and General Diaz, chief magistrate of the Mexican Republic, will meet and shake hands on the bridge across the Rio Grande River, it would seem that the present fortunes and mood of our sister republic were of the happiest and most sunny. There is another side, however, to Mexican conditions at present, shown to us not only by the reports of appalling losses of life in the recent floods and earthquakes in the North but by the stories now gradually coming to light of the strength of the anti-Diaz feeling, with its horrible possibilities of civil war, which has crystallized about the personality of General Bernardo Reyes, Governor of the State of Nuevo Leon, and opposition candidate to Señor Ramon Corral for the vice-presidency. Next year Mexico will hold a presidential election. It is already a foregone conclusion that Diaz will succeed himself for the seventh time. But the next will be his last term, and since the vice-president will succeed

him, the situation is full of significance. Next year also Mexico will celebrate the one hundredth anniversary of her independence from Spain. Altogether 1910 will be a great year for our neighbors to the south.

*Politics
and Finance in
England.*

It is expected that early in the present month the British budget will reach the House of Lords.

While certain concessions have been made by the government in the form of the budget as originally introduced, particularly in the clauses dealing with land valuation and taxation, the bill as it now stands has absolutely no chance (if we are to believe the published statements of Lord Rosebery, Lord Landsdowne, and Mr. Balfour) of acceptance in the upper house. Furthermore, Lord Landsdowne contends there will be no attempt to amend or modify it. The procedure of the Opposition, which will be followed by the Lords as now announced, is to reject the entire bill on its second reading on the ground that it embodies new principles not properly included in a finance bill and that it requires the direct authorization of the general electorate. The budget will probably, therefore, be rejected and the government called upon to order a general election. There is probably a great deal of Unionist confidence in the result of a general appeal to the country, although the by-elections which have taken place at widely different points in the Kingdom since the first reading of the budget in the Commons have almost invariably resulted in increased government gains. A general election in Great Britain, fought out upon the lines advanced by Mr. Lloyd-George's "socialistic budget," cannot fail to be of much interest and significance not only to Britons but to the rest of the civilized world as well.

*Still
Shortening the
Atlantic Trip.*

It is now possible to make the actual journey between London and New York well within five and a half days. If the new ocean records established last month by the giant Cunarders, the *Mauretania* and *Lusitania*, are maintained, the adoption of Fishguard instead of Liverpool as the British termination of the Cunard route will save at least three hours on the transatlantic trip at its preceding "best." The *Mauretania*, which now holds records both ways for a fast passage, made the first trip from Fishguard in 4 days, 11 hours, and 35 minutes at an average speed of 25.87 knots, consuming more than a thousand tons

of coal a day on the passage. On her preceding eastward run she made the first call at Fishguard, a little town on the southwest coast of Wales, 4 days, 14 hours, and 27 seconds after leaving Sandy Hook, and in her second eastward trip lowered this record by 46 minutes. The special train of the Great Western Railway rushed the passengers to London across Wales and England in 4 hours and 33 minutes. At present Fishguard is only an adjunct to Liverpool, but the Great Western Railway intends to spend \$25,000,000 or more in improving the harbor, and eventually, they announce, London will be no longer the terminal. Through express trains from Fishguard to Dover will then bring Paris within the five-day period.

*End of
the Swedish
Strike.*

After a contest remarkable in the annals of labor disturbances for its peaceful character, the great Swedish "general strike," described in these pages last month, was formally called off by the labor federation on September 6, the government at Stockholm assuming the task of arranging a satisfactory settlement of the difficulties. Although some concessions were made to the workmen, the strike was virtually a failure. The railroad men decided not to go out as a body, and most of the moderate workmen who had been drawn into the movement at the start very soon made terms with their employers and returned to work. The peaceful character of the strike is ascribed largely to the closing of the saloons, a fact which has provided an excellent object-lesson of the benefits of total abstinence. Some of the lessons of the strike, as set forth in the more mature Swedish journals, are given on another page (481).

*The
Kriegspiel Here
and Abroad.*

September, which is the month generally set aside for the autumn maneuvers of European armies, was marked by mimic war on a tremendous scale in Germany, Russia, France, and Austria-Hungary. This year the German "Kaiser maneuvers" were on the largest scale ever held. The combined forces of the "Reds" and the "Blues," as the attacking and defending forces are known, aggregated 120,000 men, 30,000 horses, and 550 guns. The use of dirigible balloons of the Zeppelin order was one of the new features. It is reported that the Germans now have ready for service in case of war three Zeppelin warships, besides thirteen other aerial craft. In



EX-ADMIRAL LORD CHARLES BERESFORD, ENGLAND'S
POPULAR FIGHTING SAILOR.

(Lord Beresford, who has now retired from active sea duty, visited New York last month. He made a speech in favor of an Anglo-American alliance.)

the chorus of declarations for international peace and abhorrence of war which has recently been coming from the German press it is rather significant that among the current books to arouse discussion in the Fatherland and call forth, so the cable dispatches are telling us, the "favorable notice" of the Kaiser is a remarkable volume by Baron von Stengel, a distinguished Bavarian jurist and one of Germany's delegates to the first Hague Conference. This book, entitled "The World State and the Peace Problem," is "designed to popularize war, the writer being convinced that the growth of the peace movement involves national peril." Extracts from this remarkable book are presented in our "Leading Article" department this month (page 484). Although the United States has scarcely begun the practice of the war game, we have, on the authority of General Wood, begun it well. On another page this month General Wood's views of the usefulness of the war game as played in Massachusetts during mid-August are set forth with illustrations.

China
Agrees with
Japan.

The terms of the treaty between Japan and China regarding the "improvement" of the Antung-Mukden Railroad, referred to in these pages last month, was signed in Peking on September 4. Since the points agreed upon in this treaty are quite likely to figure a great deal in the news from the Far East in the coming months and years, we give them rather in full. China agrees:

(1) Not to construct the Hsinmintun-Fakumen Railroad without consulting Japan. (2) In the event that the Kirin Railroad be extended to the Korean border half the capital required will be borrowed from Japan. (3) Japan is to have the right to work the mines in the Fushun and Yentai districts. (4) Japan will construct the extension of the Yinkow Railroad. (5) There shall be joint exploitation of the mines in the zones reached by the Manchurian and Antung-Mukden Railroad lines. (6) China agrees to open four trade marts in the Chientao district, between Korea and Manchuria; the Koreans living therein shall be under the jurisdiction of Japan, while those residing outside the marts shall be under the jurisdiction of China, except that Japan shall have the right to hold court in cases calling for the infliction of the death penalty. (7) China agrees that Japan move the station of the South Manchurian Railroad to Mukden.

Japan, in consideration of these concessions, agrees:

(1) To recognize Chinese sovereignty in the Chientao district. (2) That the terminus of the Hsinmintun Railroad be the City of Mukden. (3) To indemnify the owners of the Fushun and Yentai mines.

While the Japanese declined to discuss at all the question of the delimitation of the railroad zones or the question of policing the Antung-Mukden line, in general these terms are understood to prevent the Russian monopoly of Manchurian trade. Whether or not the monopoly is simply to be transferred to Japan, remains to be seen. Japanese-American relations were cordially manifested during the past month by the arrival of Prince Kuniyoshi Kuni, a cousin of the Emperor, to represent his country at the Hudson-Fulton celebrations, and by the warm reception accorded by President Taft to the members of the Japanese Commercial Mission to the United States, who met the President at Minneapolis during the middle of last month.

The United
States of
South Africa.

By the passage on August 19 of the third reading of the South African Federation bill in the British House of Commons a new nation entered the world's political family. By free



THE BASUTO (SOUTH AFRICAN) CHIEFS WHO RECENTLY MADE A PILGRIMAGE TO LONDON TO PETITION KING EDWARD FOR THE FRANCHISE RIGHT.

and concerted action, said Premier Asquith, communities which only a few years ago seemed to be fatally and irremediably divided by history, sentiment, and even interest have worked together to make themselves not only a component part of the British Empire but a community which, forgetting all the bad traditions of the past, will undertake the new duties it is about to assume in a spirit of loyalty and patriotism for the common good.

The legislatures of the Transvaal, Cape Colony, Orange River Colony, and Natal have now confirmed the constitution as adopted at the Bloemfontein convention last year, and these colonies, covering an aggregate of more than 660,000 square miles and with a total population of close to five and one-half millions, of which one million is white, will hereafter form a single nation with a strongly centralized government.

Its Organic Law. In general, the provisions of the South African constitution are similar to those of the organic law of Canada, except in the highly important particular that, in addition to reserving to the

federal government all powers not expressly delegated to the provinces, the South African fundamental law expressly leaves no exclusive powers whatsoever to the provincial authorities. English and Dutch will be the official languages on exactly equal legal terms. There are to be two capitals,—Cape Town, the seat of the union legislature, and Pretoria, the seat of the union executive. The provision causing most discussion and opposition in the Parliament at London is the one which limits forever the representative function to "persons of European descent." Up to the time of the adoption of the constitution the colored races in South Africa, numbering more than 4,000,000, were without vote in all the provinces of the new union, except Cape Colony. As finally passed by the Commons, "without any amendment of any sort or kind," the constitution of the new nation virtually disfranchises the colored man. This is the significant fact to Americans, that, in the latest attempt at federative self-government made by the Anglo-Saxon race, the claim of non-white citizens to the franchise has been rejected.

RECORD OF CURRENT EVENTS.

(From August 21 to September 20, 1909.)

POLITICS AND GOVERNMENT—AMERICAN.

August 21.—President Taft orders the reduction of the army by 10 per cent., or to a force of 80,000 men....The Treasury Department instructs collectors of customs to prepare lists of all corporations in their districts liable to the tax under the Payne Tariff law.

August 22.—President Taft confers with members of his cabinet on the proposed changes in the Sherman anti-Trust act.

August 23.—District-Attorney Jerome, of New York, announces his intention of seeking re-election.

August 24.—The United States Circuit Court at Chicago permanently enjoins the Interstate Commerce Commission from fixing railroad rates, except in specific cases.

August 25.—Maryland Republicans advocate the passage of the federal income-tax amendment.

August 29.—President Haffen, of the Borough of The Bronx, New York City, is removed from office by Governor Hughes.

August 30.—It is announced that President Taft has selected Henry Hoyt as counselor of the State Department.

August 31.—The executive committee of the Republican city and county committees of New York declares for fusion against Tammany.... President Bird S. Coler, of the Borough of Brooklyn, files charges against Mayor McClellan, of New York City.

September 4.—The Income Tax League of the State of New York is organized at Albany.

September 6.—Justice Gaynor, of the New York Supreme Court, states that he will accept an independent nomination for Mayor of New York City.

September 7.—Mayor Tom L. Johnson, of Cleveland, is renominated in the Democratic primary election....Cincinnati Republicans nominate Dr. Louis Schaab for Mayor at the primaries....Regius H. Post resigns as Governor of Porto Rico.

September 9.—A conference of leading New York Democrats at Saratoga Springs is addressed by Edward Shepard, Alton B. Parker, and others....John F. Murray is elected president of Bronx Borough, New York City, to succeed Louis F. Haffen, removed.

September 10.—President Taft appoints census supervisors for some of the large cities.

September 11.—President Taft appoints Prof. Henry C. Emery, of Yale, James B. Reynolds, Assistant Secretary of the Treasury, and Alvin H. Sanders, of Chicago, members of the tariff commission authorized by the Payne law.

September 12.—It is announced that George R. Colton will be appointed Governor of Porto Rico to succeed Regius H. Post.



THE LATE ROSS G. MARVIN.

(The Cornell instructor who was the only man lost from the Peary polar expedition. Mr. Marvin was drowned on April 10, forty-five miles north of Cape Columbia.)

September 15.—President Taft upholds Secretary Ballinger and orders the dismissal of L. R. Glavis, an agent of the General Land Office, who made charges against the secretary.

September 17.—In a speech at Winona, Minn., President Taft defends the Payne-Aldrich tariff....Charles H. Treat, of New York, resigns the office of Treasurer of the United States.

POLITICS AND GOVERNMENT—FOREIGN.

August 21.—Investigations into Montreal municipal affairs show that millions have been lost in public contracts and that appointments have been bought and sold for years.

August 27.—The Irish Land bill passes through the committee stage in the British House of Commons without noteworthy changes.

August 28.—A demonstration against M. Christensen's appointment to the Danish Ministry takes place in Copenhagen.

August 30.—Ricardo Jimenez is elected president of Costa Rica.



THE HARRIMAN HOME AT ARDEN, N. Y.

(In this house, only recently completed, Mr. Harriman died on September 9.—See page 465.)

August 31.—Prince Nicholas, third son of the King of Greece, asks permission to resign the post of inspector-general of artillery, owing to the agitation in the army....The Council of Imperial Defense in Russia is suppressed.

September 1.—Fifteen former officials in Persia are exiled for life.

September 2.—A protocol is drawn up fixing the annual pension of the deposed Shah of Persia at \$180,000.

September 5.—The new governor of Newfoundland, Sir Ralph Williams, arrives at St. John's.

September 10.—Lord Rosebery, in a speech at Glasgow, declares himself in favor of tariff reform in preference to the Liberal budget.

September 17.—El Roghi, leader of the recent rebellion against the Sultan of Morocco, is executed at Fez....The British House of Commons passes the Irish Land bill.

September 18.—The Costa Rican Congress refuses the loan contract of the National City Bank of New York for refunding its external and internal debt.

September 19.—Police in St. Petersburg, Russia, break up a meeting of Constitutional Democrats.

INTERNATIONAL RELATIONS.

August 25.—The Spanish troops in Morocco begin their advance against the Riff tribesmen.

August 27.—Ten foreign nations officially inform the United States that they will be represented at the Hudson-Fulton celebrations in September.

August 31.—The conclusion of the Chino-Japanese negotiations regarding Manchuria shows that China has granted many concessions in return for few....The Spanish troops in Morocco advance into the open country before Zeluán....The Government of Panama pays \$14,000 to the United States as reparation for maltreatment of American naval officers and seamen.

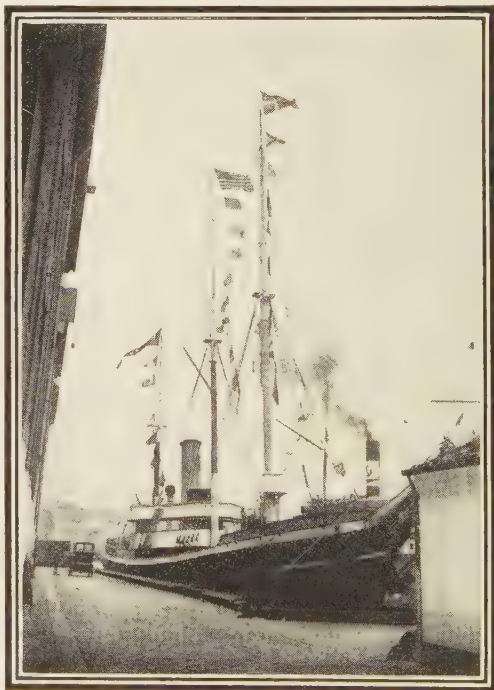
September 1.—Venezuela pays the first in-

stallment of \$475,000 for the release of all rights held by the New York & Venezuela Company....Great Britain demands reparation of China for the killing in Kan-Su Province of an Indian surveyor and British subject attached to an expedition commanded by Lieutenant Clark, an American....It is announced at Washington that the United States and Cuban postal authorities will co-operate to prevent the use of the mails in connection with Cuban lottery traffic....The Japanese Commercial Commission arrives at Seattle.

September 4.—The Chino-Japanese agreement regarding Manchuria is signed at Peking; China will open four towns to trade in the Chien-Tao district and will permit Koreans to settle in the region.

September 11.—The arrival at Melilla of 11,000 soldiers reinforces General Marina, commander of the Spanish troops in Morocco.

September 13.—A Latin-American Bureau is established in the State Department at Washington with Thomas C. Dawson, now Minister to Chile, as its chief.



THE SHIP THAT BROUGHT DR. COOK BACK TO CIVILIZATION.

(The Danish steamer, *Hans Egede*.)

September 15.—Peru and Bolivia reach an agreement based on the decision of President Alcora, of Argentina.

September 18.—Announcement is made of the appointment of Y. Uchida, Japanese Ambassador to Austria, to succeed Baron Takahira at Washington....The Emery claim, a long-standing cause of friction between the United States and Nicaragua, is settled at Washington.

September 19.—President Taft meets the members of the Japanese commercial mission to the United States.

OTHER OCCURRENCES OF THE MONTH.

August 21.—The greatest floods in forty years are reported from Victoria, Australia....Walter Wellman's balloon having burst, he abandons the attempt to reach the North Pole this year....The Stockholm Street Railway Company scores a victory over the strikers....The Blue army engaged in the defense of Boston breaks camp and the soldiers return to their various homes (see page 460)....The Chicago Great Western Railroad is sold at St. Paul for \$12,000,000 to a syndicate formed by J. Pierpont Morgan.

August 22.—Fire in the business center of

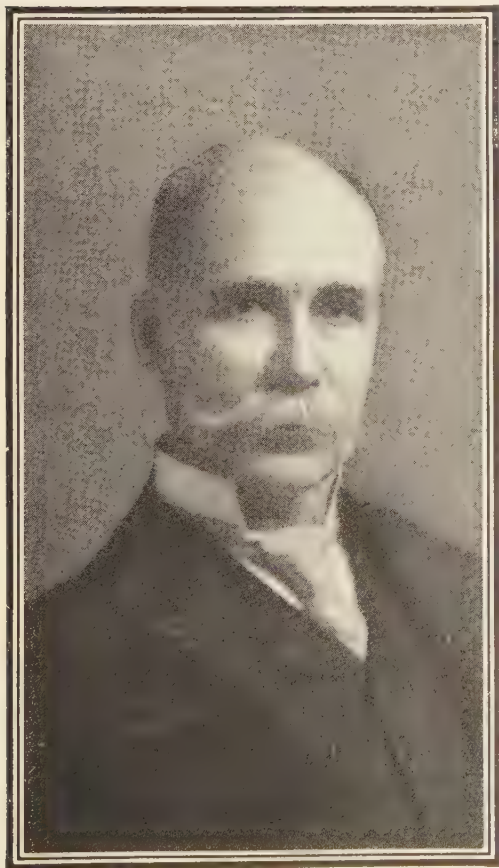


THE LATE CLYDE FITCH, THE PLAYWRIGHT.

Monterey, Mexico, destroys property valued at \$1,500,000....Fires destroy two towns in British Columbia and threaten a third....A million-dollar fire occurs at Decatur, Ill.

August 23.—The new gallery at the British Museum for the exhibition of Greek and Roman casts is opened to the public....Glenn H. Curtiss, the American aeronaut, makes a record for the course at Reims and M. Paulhan makes two flights of 49½ and 56 kilometers, respectively....The Bayard-Clement airship built for the Russian Government is wrecked after a successful test.

August 24.—M. Bleriot makes a new record for the airship course at Reims and M. Paulhan ascends to a height of 500 feet....Several detachments of Turkish troops are annihilated by Mahdists in the Yamen, southwestern Arabia....In a collision between an excursion steamer and the North German Lloyd liner *Schlesien*, in Montevideo harbor, more than 150 persons are drowned....The Russian army maneuvers begin....The benzoate of soda question is debated at the Denver Pure Food Convention....The American Bar Association meets at Detroit....The American Board of Commissioners for Foreign Missions learns of the loss of the missionary steamer *Hiram Bingham* and the death of her master in the Pacific Ocean....E. H. Harriman returns from Europe and discusses business conditions (see page 465)



MR. HERBERT L. BRIDGMAN.
(Secretary of the Peary Arctic Club.)

August 25.—The British Association meets at Winnipeg, Man....Severe earthquake shocks are felt in Italy....M. Paulham breaks all aeroplane records for time in the air on the course at Reims, making a flight of nearly three hours.

August 26.—M. Latham makes a flight of 95.88 miles at Reims, breaking all aeroplane records for distance....The Association of State and National Food and Dairy Departments, in convention at Denver, adopts a resolution indorsing the findings of the so-called Remsen board, which declared benzoate of soda to be not harmful when used as a preservative.

August 27.—Henry Farman wins the Grand Prix de la Champagne at Reims, breaking the world's aeroplane record for duration of flight and distance, covering 111.78 miles in 3 hours, 4 minutes, 56 2-5 seconds....The lives of 128 passengers on the steamer *Ohio*, which strikes a rock and sinks off Steep Point, Alaska, are saved by the efforts of the wireless operator, who is drowned....A national conservation congress, representing thirty-seven States, meets at Seattle.

August 28.—The International Medical Congress opens at Budapest....Glenn H. Curtiss wins the contest at Reims for the fastest aeroplane flight by traveling 12.42 miles in 15 minutes 50 3-5 seconds....Floods in Monterey, Mexico, cause great loss of life and heavy damage to property.

August 30.—The Cunard liner *Mauretania* arrives at Fishguard, inaugurating a service between New York and that port after lowering her eastbound record by 2 hours and 15 minutes....The International Trade Congress opens at Paris....A sharp earth shock occurs in the Panama Canal Zone....A serious typhoid epidemic breaks out in Coburg, Ont....Dr. T. G. Bonney is elected president of the British Association for the Advancement of Science.

August 31.—A severe earthquake shock is felt in Rome....The first of Germany's *Dreadnoughts* leaves the Weser dockyards....Railroad communication is re-established with Monterey, Mexico.

September 1.—Dr. Frederick A. Cook announces that he reached the North Pole on April 21, 1908 (see page 433)....The west wing of the Parliament Buildings in Toronto is destroyed by fire.

September 2.—The Cunarder *Lusitania* covers the westward ocean course between Daunt's Rock and Sandy Hook in 4 days, 11 hours, and 42 minutes....Six hundred natives perish in floods in Java.

September 3.—Floods in the state of Tamaulipas, Mexico, cause great damage to property....The Swedish labor federation decides to call off the general strike following intervention by the government.

September 4.—Dr. Frederick A. Cook, who claims to have discovered the North Pole, lands at Copenhagen....More than 600 Chinese students assemble at Peking to take competitive examinations for college courses in the United States.

September 5.—Dr. Frederick A. Cook is the guest of honor at a dinner given by the King of Denmark.

September 6.—Commander Peary sends a dispatch from Indian Harbor, Labrador, stating that he reached the North Pole on April 6, 1909 (see page 427)....The strike at McKees Rocks, near Pittsburg, is virtually ended by the announcement of the manager of the Pressed Steel Car Company that most of the demands of the men will be granted.

September 7.—A tidal wave overwhelms Soto La Marina, Mexico....The Turkish Government invites bids on a loan of \$30,800,000 4 per cent. bonds....The Pressed Steel Car Company at McKees Rocks, Pa., compromises the demand of the men for an advance in wages.

September 8.—Orville Wright makes two successful aeroplane flights in the presence of 200,000 persons in Berlin, Germany....Captain F. S. Cody, the American aviator serving with the British army, flies more than forty miles in sixty-three minutes in his own aeroplane at Aldershot, England....The Rio Grande overflows its banks at Matamoros, Mexico, and half of the town is flooded.

September 9.—The *Mauretania* lowers the westbound record by seven minutes.

September 11.—Glenn H. Curtiss, at Brescia, Italy, covers fifty kilometers (about thirty-one miles) in 40 minutes 11 seconds....The Grand Jury in Youngstown, Ohio, indicts seventeen city and county officials and contractors for bribery and the acceptance of bribes.

September 12.—The annual maneuvers of the German army engage in tactful action 120,000 men....Halley's comet is seen by Professor Wolff at Heidelberg....The First Dutch Reformed Church, of Kingston, N. Y., celebrates the 250th anniversary of its founding.

September 13.—The State of Illinois formally seizes "made land" along the shores of Lake Michigan....Ex-Judge Lovett is elected to succeed Mr. Harriman as chairman of the executive committee of the Union Pacific.

September 14.—Mt. Vesuvius is again active....A tidal wave sweeps the coast of Lower California....President Taft, addressing the Boston Chamber of Commerce, declares in favor of the Aldrich plan of currency reforms....The American Bankers' Association meets at Chicago.

September 15.—President Diaz of Mexico celebrates his seventy-ninth birthday....President Taft begins his journey of 13,000 miles through the West and South....Three thousand employees renew the car workers' strike at McKees Rocks, Pa.

September 16.—President Taft, in a speech at Chicago, denounces the law's delays....The American Bankers' Association unanimously opposes postal savings banks and government-guaranteed deposits.

September 17.—Orville Wright makes a new height record for aeroplane flights at Berlin.

September 18.—The strike of street car men cripples the surface railway in Omaha and Council Bluffs.

September 20.—The *Mauretania* reduces her eastbound record by forty-five minutes....The first Catholic plenary council ever held in Canada begins its sessions at Quebec....President



THE NEW CUNARD ROUTE, VIA FISHGUARD TO LONDON (SEE PAGE 406).

Taft speaks at Des Moines, Ia., outlining proposed changes in the interstate commerce and anti-trust laws....A hurricane from the Gulf of Mexico cuts off New Orleans and many important points in the Mississippi Valley south of Vicksburg from all communication....The members of the Dutch committee representing the Netherlands at the Hudson-Fulton celebration arrive in New York.

OBITUARY.

August 21.—Major Henry B. Richardson, of Louisiana, member of the Mississippi River Commission, 68....Miss Maria Parloa, writer on cookery and household topics, 66.

August 22.—Rev. Father Thomas J. Ducey, of New York City, 67.

August 26.—Col. Jeremiah H. Gilman, veteran of the Civil War, 78.

August 27.—George Manville Fenn, the English novelist, 78....Prof. Emile Hansen, the Danish botanist, 67.

August 31.—Charles Frederick Wingate, engineer and writer, 62.

September 3.—Captain Samuel Conrad Lemly, U. S. N., retired, a member of the Greely Polar expedition, 56.

September 4.—(William) Clyde Fitch, the American playwright, 44.

September 7.—Henry B. Blackwell, a prominent advocate of woman suffrage, 84....Dr. Henry C. Chapman, professor emeritus at the Jefferson Medical College, Philadelphia, 64....Gen. James Shackelford, a veteran of the Mexican War, 82.

September 8. Lieut.-Gen. Henry C. Corbin, U. S. A., retired, 67....Gen. Frank C. Armstrong, of Washington, D. C., 74.

September 9.—Edward H. Harriman, 62 (see page 465)....Gen. Edward M. McCook, former Minister of the United States at Hawaii, 74.

September 10.—Samuel G. Thompson, of Philadelphia, formerly an associate justice of the Pennsylvania Supreme Court, 72....Celora E. Martin, former associate judge of the New York Court of Appeals, 75.

September 11.—Col. Michael J. O'Brien, president of the Southern Express Company, 73....Jean Paul Selinger, the portrait painter, 59.

September 12.—William Lloyd Garrison, merchant and reformer, 71....Pierre Ernest Pinard, who was a Minister under Napoleon III., 87....Thurlington W. Harvey, one of Chicago's pioneer lumber men, 74.

September 13.—John W. Castles, president of the Union Trust Company of New York, 51....Capt. Thomas Phelan, Irish-American patriot and soldier of fortune, 76.

September 14.—Charles Follen McKim, the well-known New York architect, 62....Mayo W. Hazeltine, book reviewer and special writer for the *New York Sun*, 68....James D. Smillie, the artist, 76.

September 15.—Sally Liebling, the distinguished German pianist, 50.

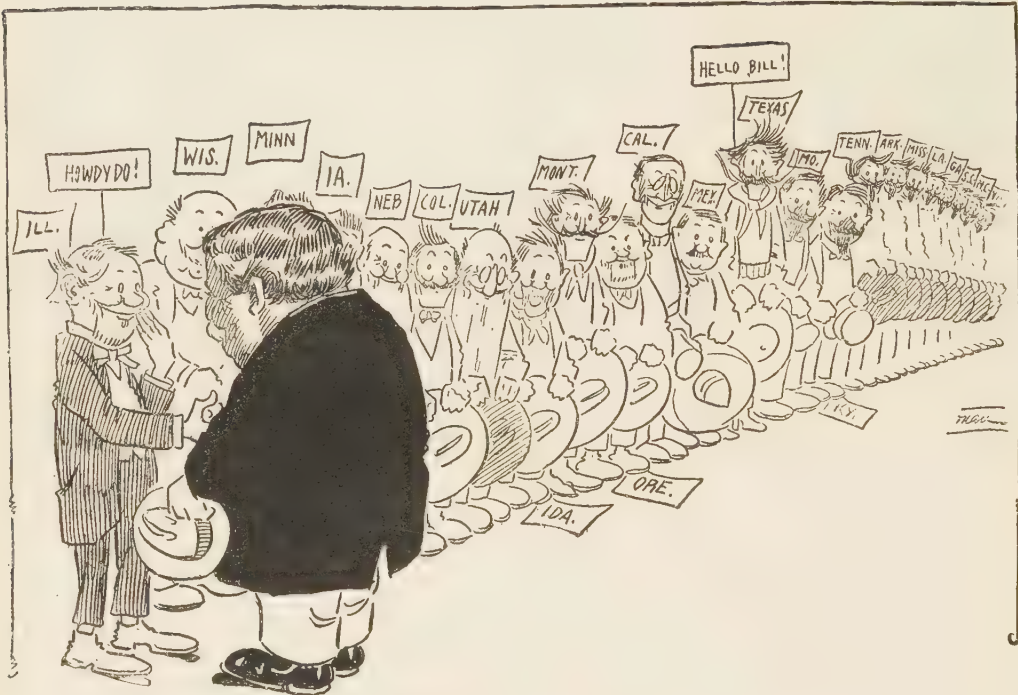
September 16.—Rev. Job S. Mills, D.D., bishop of the United Brethren Church, 61.

September 17.—Sir Thomas Bent, Premier of Victoria....Rt. Rev. William George McCloskey, bishop of the Roman Catholic diocese of Kentucky and the oldest Roman Catholic bishop in the United States, 85....Prof. William Thayer Smith, dean of the Dartmouth Medical School, 70.

September 20.—Edward P. Hatch, of the New York house of Lord & Taylor, 77....Bishop Seth Ward, of the Methodist Episcopal Church South, 51....Dr. Benjamin Francis Cabell, president of Petter College, 59.

September 21.—Governor John A. Johnson, of Minnesota, 48.

SOME OF THE RECENT CARTOONS.



HELLO! HELLO! HELLO!

From Ohio State Journal (Columbus).



A SWING AROUND THE CIRCLE.

(Apropos of President Taft's extended trip across the country.)

From the Herald (Washington).



WILL MR. TAFT SATISFY THEM?

From the Sun (Baltimore).

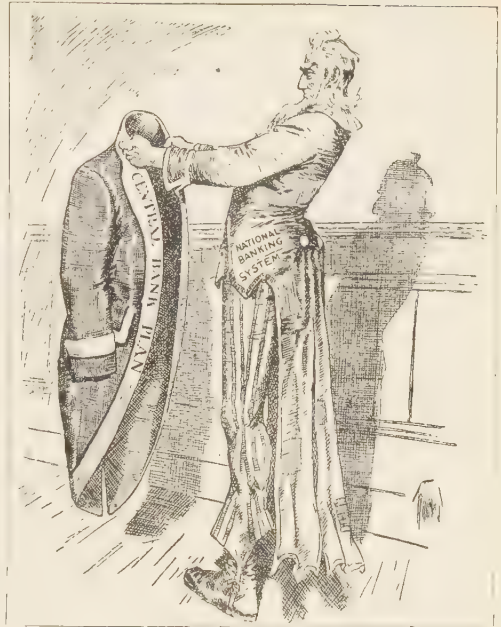
THE CARTOONS ON THIS PAGE ARE ALL APROPOS OF PRESIDENT TAFT'S 13,000-MILE TRIP, THROUGH A MAJORITY OF THE STATES OF THE UNION, WHICH HE BEGAN AT BEVERLY, MASS., ON THE 15TH OF SEPTEMBER.



A SAFE PLACE FOR THE PEOPLE'S SAVINGS.

From the *American* (New York).

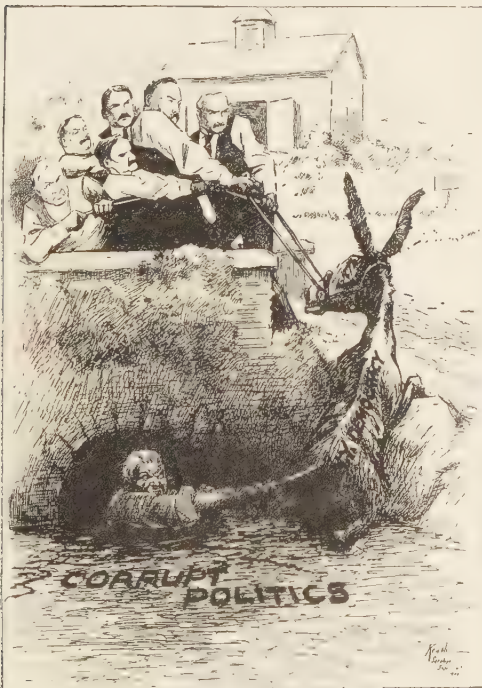
The opposition of the bankers to the kind of postal savings banks favored by President Taft and successive postmaster-generals will hardly



HE NEEDS A NEW COAT.

UNCLE SAM: "Can this be made to fit me?"

From the *Herald* (Boston).



NOW, THEN, ALL TOGETHER!

(Apropos of the meeting of noted Democrats at Saratoga, N. Y., for the purpose of rehabilitating their party.)

From *Harper's Weekly* (New York).



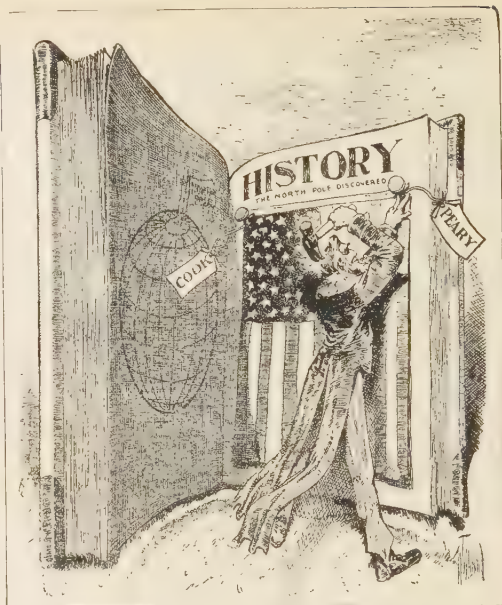
NO INFANTILE PARALYSIS HERE.

From the *Pioneer Press* (St. Paul).



WELL, WHOEVER PUT HER THERE, SHE'S THE STARS
AND STRIPES.

From the *Leader* (Cleveland).



NAILED!

From the *Herald* (Boston).



THE FOUNDLING.

From the *Mail* (New York).



LET ME SEE—WHAT ELSE IS THERE TO DO?

From the *American* (New York).

A GROUP OF CARTOONS ON THE DISCOVERY OF THE NORTH POLE.

There have been an immense number of excellent cartoons on this great polar subject of the past month, but we have space for only a few. These, however, illustrate some widely expressed sentiments with regard to this interesting achievement.



Photograph by Brown Bros., N. Y.

BROOKLYN BRIDGE ILLUMINATED FOR THE CELEBRATION.

CELEBRATING THE HUDSON-FULTON ANNIVERSARIES.

DURING the last week of September and the first of October New York City and the Hudson River counties will celebrate the three hundredth anniversary of the discovery of that noble river by Henry Hudson and the one hundredth anniversary of Robert Fulton's successful inauguration of steam navigation on what was then and for many years remained the great highway of commerce from New York to the north and west.

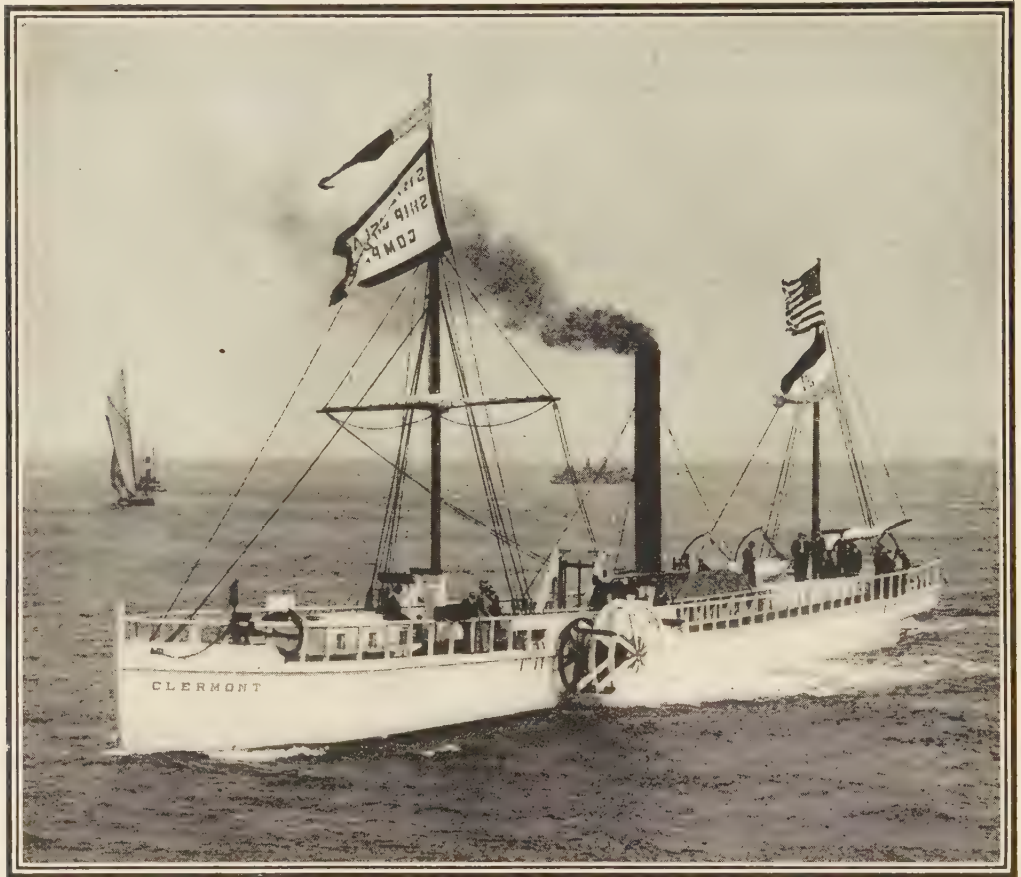
It is fitting that this celebration,—the most elaborate since the Columbian celebrations of 1892,—should be largely naval in character, since it commemorates two of the most important events in the annals of navigation,—the discovery of a great river by an English navigator in the service of the Netherlands and the successful application of a new motive power in the propulsion of vessels. In order that we of this generation, who cross the Atlantic in four-day trips by the aid of this same motive power, may know what manner of craft served the needs of Hudson and Fulton, respectively, reproductions have been made of the *Half Moon*, the little ship which Hudson sailed past Manhattan Island and up



Copyright, 1909, by the Hudson-Fulton Celebration Com.

THE "HALF MOON."

(The restoration of Hudson's famous ship, brought over from Holland to take part in the Hudson-Fulton celebration.)



Photograph by Paul Thompson, N. Y.

FULTON'S "CLERMONT" AS REPRODUCED ON THE WATERS OF NEW YORK HARBOR.

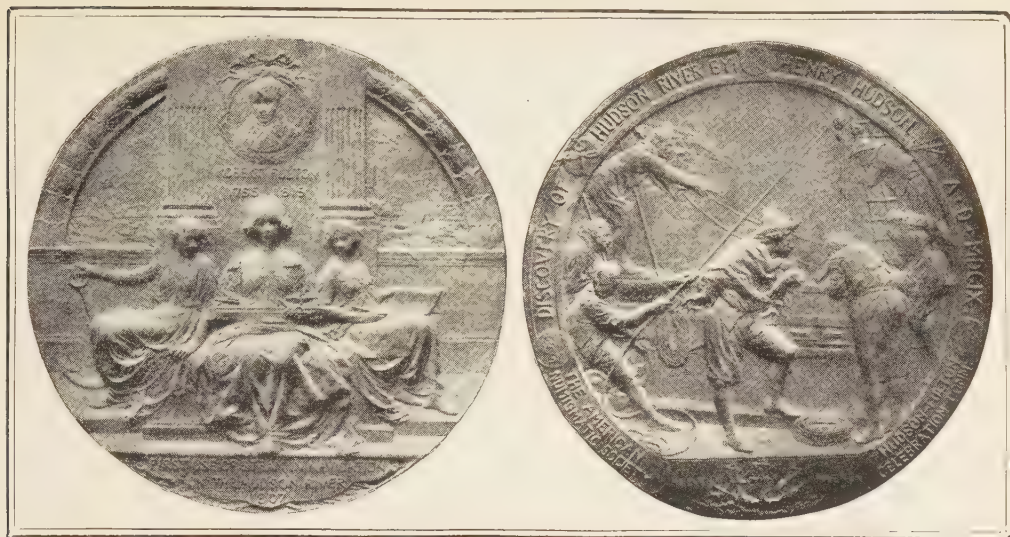
(This photograph was taken on a trial trip in September.)

the broad, deep waterway that was taken at first for the long-sought "Northwest Passage,"—and the *Clermont*, Fulton's pioneer steamboat of 1807, which attained a speed of almost six miles an hour with favoring wind and current. These two mimic boats will focus the interest of the whole celebration.

In dramatic contrast with the tiny proportions of these reminders of other centuries are the great warships assembled in New York Harbor by our own and foreign governments to honor the achievements of the men who made the very names of the *Half Moon* and the *Clermont* familiar to the ages. Never before were so many nations represented in such an assemblage of war vessels,—a naval display that England alone has surpassed. The British representation, under the command of Sir Edward Seymour, Admiral of the Fleet, comprises the *Drake*, the

Argyll, the *Duke of Edinburgh*, and the *Invincible*. Germany sends the *Dresden*, the *Bremen*, the *Hertha*, and the *Victoria Luise*, under the command of Admiral von Koester. The French squadron, commanded by Rear-Admiral Le Pord, consists of three warships, *Justice*, *Verité*, and *Liberté*. Austria also will be represented by three cruisers. Italy sends the *Etruria* and the *Etna*, the Netherlands the *Utrecht*, Argentina the *Presidente Sarmiento*, Mexico the *Bravo*, and Cuba the revenue cutter *Hatney*.

The land parades will vie with those on the water in spectacular effects. The school children who will take part in these will be numbered by hundreds of thousands. The line of march will be decorated most lavishly, and at night the illumination will exceed in brilliancy anything of the kind ever before attempted in any American city. Thousands of electric lamps will be employed on public



Copyright, 1909, by the Hudson-Fulton Celebration Commission.

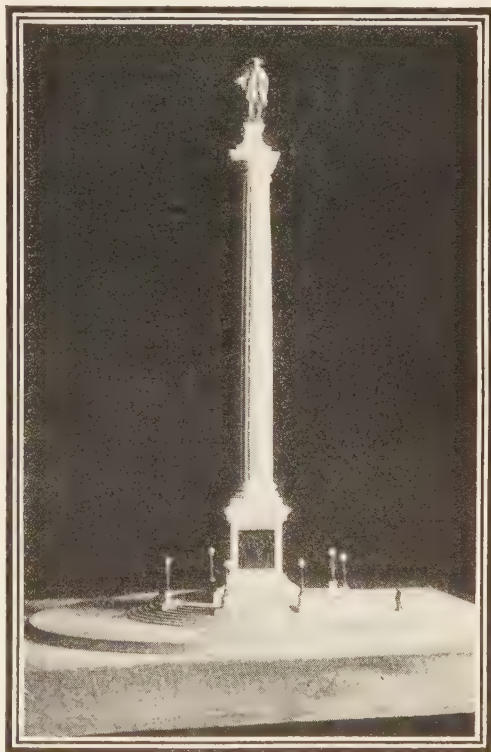
OFFICIAL MEDAL OF THE HUDSON-FULTON CELEBRATION.

and private buildings. Bridges, arches, and all other available structures will be brilliantly lighted. Along the water front particularly the display will be strikingly beautiful.

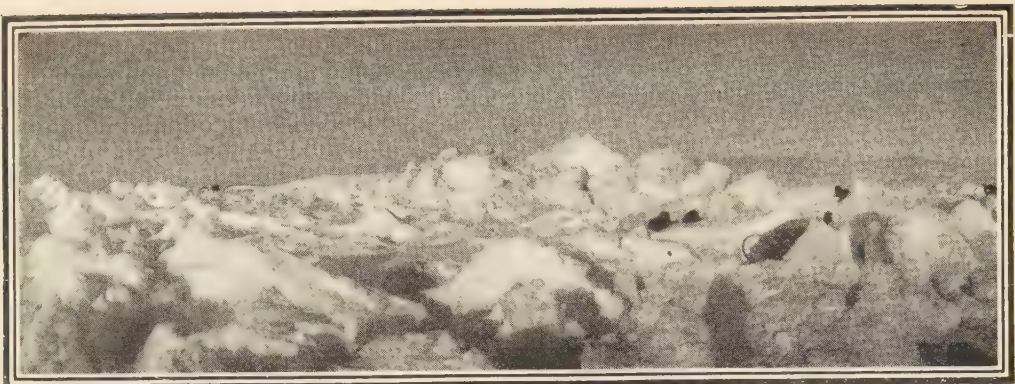
During the week of October 4 the towns along the upper Hudson, as far north as Troy, will have their own celebrations, all the vessels of lighter draft passing up the river at least as far as Newburgh. On the closing night of the celebration beacon fires will be kindled on the heights from Troy to the Palisades, and thus the mode of signaling in use during the Revolution will be revived.

During the celebration aeroplane flights will be made by Wilbur Wright and Glenn H. Curtiss from Governors Island in New York Harbor. It is expected that an attempt will be made to fly from New York to Albany,—a feat no more wonderful in our day, perhaps, than the *Clermont's* voyage seemed to the New Yorkers of 1807.

This anniversary occasion will have at least one permanent memorial in the form of a monument to Henry Hudson at Spuyten Duyvil, in the northern part of New York City. The design is by Karl Bitter, with a tablet by Shrady, and the cost will be about \$100,000, to be defrayed by popular subscription.



THE PROPOSED MEMORIAL TO HENRY HUDSON IN NEW YORK CITY.



Copyright by A. Fiala.

WHEN THE POLAR PACK MEETS THE LAND.

THE NORTH POLE AT LAST.

BY CYRUS C. ADAMS.

(Editor, American Geographical Society.)

THE nations have never been so much impressed by any other geographical event as by the announcement that the North Pole has been attained. It has been a world-wide topic for the past month. The northern apex of the globe has been photographed and the men acclaimed as having unfurled their flags over it are the heroes of the day. It is a great event and the story of the conquest of the Pole will live in history; and yet not a vital human interest will be affected by it.

Times have changed. Scarcely a pulse in Europe beat faster when the Western Hemisphere was brought to light four centuries ago. News traveled at snail's pace then. Generations passed away while the New World, piecemeal, was coming into view. A century elapsed before the great fact dawned upon the minds of men that a vast redistribution of human enterprise was to be the potent sequence of a geographical discovery.

The race to-day wants every nook and corner of the earth to stand out in the light, both for the good we may gain from them and for the completion of our knowledge of the little planet we inhabit. Nothing less will satisfy human need and curiosity. The attainment of the Pole signifies that we can and will produce a map, some day, which will picture the whole world just as it is.

We read of this final triumph as the culmination of three centuries of striving to reach the North Pole. But the Pole was never sought, for itself, until the nineteenth

century. Robert Thorne, Henry Hudson, and other old mariners searched the ice edge for openings to the north, not that they had the slightest interest in the Pole but because they imagined they might find a passage to China across it. The early whalers were concerned about the Pole only if they might find new whaling grounds there. Some of them made good northings and two or three even declared that they had been to the Pole, but their stories will not dim the luster of the present achievement. The quest of the Pole as a distinct object of geographical discovery has been known only for ninety-two years, and it began when the British Admiralty commanded Captain Buchan, with two vessels, to reach the Pacific by crossing the North Pole. The British flag ever since has been floated by most of the leaders who have struggled and agonized and died in their almost superhuman efforts to reach the coveted goal. There was more significance in Peary's dispatch that he had nailed the Stars and Stripes to the Pole than appeared on the surface.

Two men are now before us, each claiming the great honor of having waved our flag at the North Pole. Commander R. E. Peary, U. S. N., has for many years been known to all men as one of the best equipped, most efficient and indomitable among the Arctic explorers of the centuries. Dr. F. A. Cook has served with credit both in north and south polar exploration, but always in subordinate capacities, so that he has not fig-

it is rather amusing that when Nansen took her to the Asian Arctic she was frozen in the ice with her stern to the north, and maintained this attitude toward the North Pole throughout her years of drift. She is expected before long to carry Amundsen into the American Arctic for his proposed drift of four or five years across the polar basin. The *Gauss* is now in the Canadian Arctic service after her splendid record in the Antarctic, and very likely we shall hear yet of the *Roosevelt* on the fringe of the Antarctic continent, for a movement is already on foot for the resumption of American exploration in the region where Wilkes, of our navy, dotted the maps with projecting bits of that great South Land.

PEARY'S ADMIRABLE ORGANIZATION.

But his vessel was only one of the practically perfect items in Peary's last expedition. The story of his equipment and methods on this journey will be studied as illustrating the present advanced stage of the technique of outfitting a polar party and of dealing with the problems of dogs, sledges, cold, ice, and other conditions of travel. Nothing like so good an organization as this one for the accomplishment of the most arduous polar work was ever seen before. It was the finest outcome of the explorer's ability and unequalled experience. There was only one hitch that promised trouble, and this was the accident which delayed the arrival of his oil supply. The scientific, hunting, sledging, culinary, and all other departments of the work fulfilled their purposes and operated like parts of one machine, each having its function and supplying its share in the complete result. There was no serious accident, excepting the deplorable death, by drowning, of Professor Marvin.

It may be impossible to recall any other large polar expedition in which all contingencies were so fully provided for and friction of every kind so nearly eliminated. In no respect did the explorer fail to do what he had planned for the advancement of the work. A large part of his supplies for the northern sea trip were at Cape Columbia, far west of the ship, as he had sledged them to this starting point for the north during the moonlight of the winter night. His Eskimos built igloos, or snow and ice huts, at the halts on the Northern march, the most comfortable shelters that could be devised. His dogs and sledges were in perfect trim and his men trained to endure the se-

verest drafts upon their strength; and, not least, there was harmony among all and ambition to do the utmost. Thus everything helped to win the fight, and the *Roosevelt* turned her nose homeward with more souls aboard than when she went North, for two or three Eskimo babies had been added to the personnel.

WHAT WAS SHOWN BY HIS SOUNDINGS.

Many geographers have decried expeditions for the mere purpose of reaching the North Pole. Somehow, the quest for the Pole has always kindled the popular imagination and was sure to bring fame to the man who should get there; but, of course, there is little intrinsic merit in the mere attainment of the Pole, though the area it occupies is certainly as well worth visiting as other unknown polar regions. That explorer's fortune would be ideal who should not only reach the Pole but also do good scientific work on the way. It has been Peary's great privilege to do this, and one series of observations he made is worth all that the expedition cost. This work was the soundings secured at intervals from Cape Columbia, where he started north, to the North Pole. These records from the ocean floor are of the utmost significance.

He gives the results of only three soundings in his preliminary report, but in a later dispatch he says these investigations were repeated at frequent intervals throughout the journey. Geographers will infer from them the probability that no land will be found in vast areas of the sea still unexplored. All Arctic lands, as far as known, rise from comparatively shallow waters. The idea was held until recently that the entire Arctic Ocean occupied a shallow basin. Then Nansen discovered, to the north of Asia, depths of 12,000 feet and over; and later researches have strengthened the opinion of physical geographers that though possibly some volcanic islands may be found there is little probability that land of important extent remains to be revealed in the European and Asian Polar Sea between the latitudes of Spitzbergen and Franz Josef Land and the North Pole.

ABSENCE OF LAND.

But what was the prospect of still unknown land in the American Arctic Sea? Geographers have said, within two years, that we knew practically nothing of the slope of the sea floor there, and that the possibility re-



Photograph by Brown Bros., N. Y.

TYPES OF THE NORTHERN ESKIMOS FROM WHOM PEARY AND COOK
RECRUITED THEIR HELPERS.

mained of discovering important land masses to the north of the western world. Peary's investigations have now greatly diminished the probability of such discoveries.

The first of the three soundings upon which he has definitely reported was about fifty miles to the north of Cape Columbia, where he found bottom at 660 feet, showing that the continental shelf along that part of the coast is comparatively wide. His second sounding was at a point not yet exactly indicated, but a little south of the eighty-fifth parallel. Here he found a depth of 1950 feet. It was evident that he had clearly passed beyond the continental shelf and was standing above ocean depths. His final sounding, within five miles of the Pole, was 9000 feet, without reaching bottom. He has proved that the North Pole is amid waters filling a deep basin like those discovered in the Arctic Ocean north of Asia.

Peary's evidence tends to show that the sea floor north of Grant Land reaches ocean depths not very far from the land; and this discovery, together with the results of his extensive sledge journeys to the north both of

Grant Land and Greenland, affords strong reasons for discrediting the existence of land in this large section of the American Arctic extending from Grant Land and Greenland to the Pole. The probability seems to be that, though some small islands may yet be discovered on the continental shelf, there is no land further north. The light Peary has thrown upon the extent of the continental shelf, beyond which no Arctic land is known to rise, is of great importance. Nansen wrote, two years ago, that the determination of the extent of the continental shelf* is now the most important question of North Pole geography. Peary made, last spring, a valuable contribution to its elucidation.

NO EVIDENCE OF LIFE.

The North Pole appears, from Peary's account, to be about as cheerless and monotonous as most of the Arctic Sea area. It is very interesting, however, to learn just what

* Physical geographers define the continental shelf as the submarine platform which fronts most continental coasts and sometimes extends far away from them. It is a comparatively level plain and 600 to 1,000 feet or even more below the surface of the sea.

its aspects are, and the explorer's photographs, if he fortunately secured good ones, will reinforce his vivid description. There is distinct grandeur in the tumultuous and chaotic upheaval of this ice, where it is thrown into high ridges and strewn with colossal blocks that make sledging almost impossible in many regions near the coasts of the Arctic Ocean. But the experience of all travelers who have attained the higher northings is that the ice, far away from the land, is comparatively smooth. The periphery of the ice covering of the sea naturally sustains the greatest breakage because it meets the obstruction of the shallowing depths and of the coasts upon which it is forced by the tremendous pressure behind it. It is not surprising that Peary speaks of the ice at the Pole as "chalky white with no relief."

He has said nothing, as yet, of the life conditions as he approached the Pole, and it is probable that he found no evidence of any kind of animal or other existence. Nansen says that in the higher latitudes he found no evidence of life in the air, on the ice, or in the sea; and Cook reports that about the eighty-fifth parallel and beyond he saw no life of any kind. Such reports have been regarded as very good evidence that the regions where these conditions exist are far from land.

RAPID SLEDGE TRAVELING.

For many years Peary has been regarded as the greatest of sledge travelers. His latest work on the sea ice has never been equaled, even by himself. Sledge achievement on the frozen sea should not be measured alone by the distance traveled per day when all the conditions are favorable to rapid advance. The time lost at water leads and through deep snow and other impediments that reduce the rate of speed should all be counted to make an average. In the thirty-six days of Peary's journey from land to Pole he made an average of about twelve miles a day, including fourteen days of detention at water leads, when he could not travel at all. He covered the same distance on the return journey in the remarkable time of sixteen days. According to Dr. Cook's account, he traveled at the wonderful rate of about fifteen miles a day on his northern journey, but his return trip was very slow, because the period of disintegration of the ice had set in. This greatly reduced his average, though his sledge work, if his data have been correctly reported, is among the

first-rate performances. Four to five miles a day has been regarded as fair work for sledging on the open polar sea. Captain Cagni, on his "highest north" trip, made about seven miles a day.

DR. COOK'S WESTERLY ROUTE.

We may now turn to Dr. Cook's preliminary report. He went north on a vessel to which he would not have dared to intrust his supplies for a journey through the ice-choked channels leading to the far northern point, which was the base of Peary's operations. Cook was, therefore, compelled to spend the winter of 1907-08 far south at Annotok, Greenland, which was a great disadvantage, as otherwise he might have been well advanced on the sea ice above the latitude of the Grant Land coast at the time he set out on the ocean some hundreds of miles further south. He left the land some fifteen days later in the sledging season than Peary started on the sea ice for the north. His compensations for the unfavorable southern base he occupied were that he had plenty of time to enlist at Annotok all the Eskimos he needed for his advance and supporting sledge parties and could also avail himself of the large quantities of game to be found in Grinnell Land on his land journey westward. It is not surprising that he is reported to have made very fast time on fairly good ice while traveling north with only two Eskimos and his dog teams. Some of the best sledging records have been made by very small parties, both in the Arctic and the Antarctic. His northern route was considerable west of Peary's and his difficulties with water leads, pressure ridges and the eastern ice drift seem to have been reduced to a minimum. He might have been entirely defeated if the conditions had been more onerous. His party was too small to cope rapidly with the tremendous labor of getting loaded sledges over high pressure ridges.

HIS REPORTS OF LAND STILL FARTHER WEST.

Dr. Cook says that he lost his sounding apparatus, which was certainly a great misfortune. A series of careful soundings to supplement those of Peary would have been most valuable. The failure of future expeditions to the Arctic Ocean to carry sounding apparatus is certain to be severely criticised by physical geographers as neglect of opportunity to make most important additions to our knowledge of that northern sea. Dr.



HOW THE NEWS CAME FROM PEARY.

(Map of Labrador, Newfoundland, and the Canadian mainland, showing telegraph, cable, and "Marconi" connections, also the principal points that have appeared in the news of the North Pole discovery sent by Commander Peary.)

Cook says that he saw land both on his northern journey and also on his return trip, which was still farther west, but, as his main purpose was to reach the Pole, he had no time to investigate these interesting discoveries. We may readily see the force of his point of view, and probably under the same circumstances most explorers would simply have written "land" in their notebooks and pushed on. But this is the very reason why the quest of the Pole *per se* has been condemned by nearly all geographers. We may be thankful that the Pole has been reached, for now this spur to exploratory enterprise

has lost its potency. The Pole has been visited, and it is just where it was known to be ages ago. Explorers have no longer an excuse for giving new lands they see on the horizon a wide berth on the plea that they have an appointment at the Pole.

From the slight indications that Dr. Cook gives of the position of these lands, one of them at least seems to stand on the extension westward of the continental shelf discovered by Peary.

Both Peary and Cook confirm the opinion which geographers have expressed for some years that the Pole is in the midst of

a very wide water expanse. The discovery of the ocean deeps in wide parts of the Arctic Sea area, the movement of the currents, the floating cask experiments of Melville and Bryant, and some other considerations have given force to this opinion.

LIVING AS THE ESKIMOS LIVE.

One of the most remarkable features of Dr. Cook's journey was the winter he passed on his return from the north on the south coast of Jones Sound. For many months he and his Eskimos kept themselves alive with the bows and arrows and lances they had fashioned, for they had exhausted their ammunition. They lived in a dugout they made on the coast. Not many years ago no Arctic explorer had the resource to pass successfully through such an ordeal as this. Peary was the first to call attention to this possibility, as he was the first to advocate the application to exploratory enterprise of many of the Eskimo methods of living and working. Dr. Cook was fitted by temperament and physique to live on the country when he was stripped of other resources and to come through it well and hearty. He was made of the stuff that has fitted him pre-eminently for pioneering under the roughest conditions.

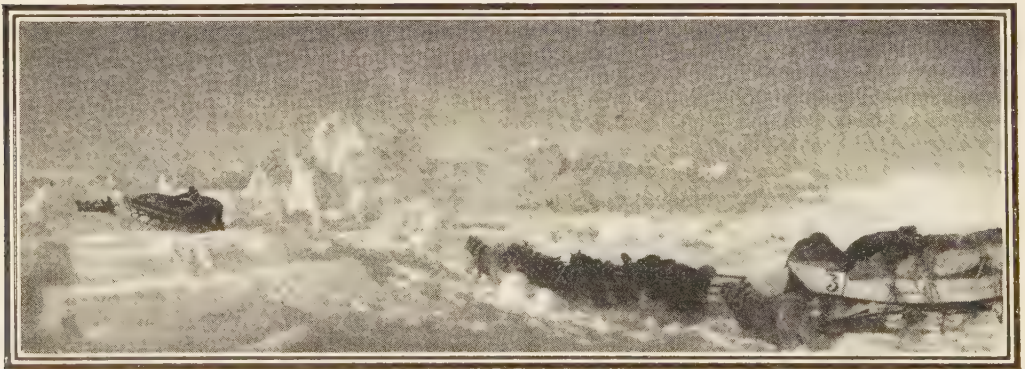
SCIENTIFIC BODIES DEMAND PROOF.

It is needless to refer here more than briefly to the unfortunate controversy concerning Dr. Cook's claims to having attained the Pole. Practically all of the leading foreign geographical societies have decided to withhold their recognition of his achievement until he supplies for examination the data upon which he rests his claim. Not

the slightest disrespect for Dr. Cook is implied in this demand. The simple fact is that he is not known to many scientific societies. He claims to have reached the North Pole and to be able to prove it; and all that scientific bodies want is the proof.

The case is quite different with Peary. His work and its methods have been known for many years. Probably no one would think of questioning his results any more than they would those of Nansen and Sven Hedin, the famous European explorers. Of course, Commander Peary will publish his results in such form that those desiring to do so may learn with what methods and instruments he obtained his scientific data. Competent explorers are always glad to do this. But Peary says, in addition, that he will now turn over to a competent tribunal certified copies of his own observations on the way to the Pole and all information relating to them. It is not to be presumed that Dr. Cook is unwilling, promptly, to do the same thing. There seems to be no reason why the questions involved should not be settled in two or three weeks.

The deck has been cleared of the polar quest and the exploration of the polar regions will now be continued with more zest than ever. It will not cease as long as there are scientific reasons for its continuance. As long as there are phenomena in the Arctic and the Antarctic of which our knowledge is unsatisfactory, as long as there are areas still unexplored, as long as ways are found to utilize them for the good of mankind, the explorer, the man of science, and the man of affairs will visit them. Whaling has already been revived in the Antarctic.



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SLEDGING CONDITIONS IN THE ARCTIC—ICE IN MOTION WITH WATER.

PEARY: A CHARACTER SKETCH.

THE greatest of all American polar explorers has crowned his many achievements by the attainment of the North Pole. At the close of his twenty-three years of Arctic service Peary has grasped the coveted prize that so many explorers have vainly sought to reach; and with Peary at the Pole, the curtain drops on his active life in the field he has made his own.

Who could so fittingly wear the laurels he has won this year? He has spent more years in the frigid north than any other explorer. He has traveled thousands of miles farther on ice cap, on snow-hidden lands, on the frozen ocean than any other man save the skin-clad nomad of the Arctic. He has lifted the veil that hid inner Greenland, proved to us that this land of mystery is the largest island in the world, told us of the great cluster of islands and the mighty fiords that edge its wide, northern front, pictured, as no other discoverer has done, the men and women who live where a day and a night make the year, and shown us flowers and grazing musk-oxen on the northern edge of the most northern land known. It was right that he also should reveal to us with his sounding line the sea floor from the land to the Pole and photograph for us the northern apex of the world. We may endeavor here to tell something of the man who has made these enormous additions to knowledge.

About twenty-two years ago, on a dripping winter evening, a young man named Peary stepped into a small audience room in Brooklyn, where a few score of persons had assembled to hear him talk. No one there had ever seen him and few had even heard of him, but they were glad to be present, for they were members of a new geographical society, born with hopes but no money; and here was a bright fellow in the engineering corps of the United States Navy, who had kindly accepted an invitation to come from the League Island Navy Yard to talk to them, without price, about his first visit to Greenland in 1886, when he made a sledge journey upon the great inland ice cap.

It was a little incident and Peary himself did not know that it was to be important in his career. It, in fact, introduced him to public notice. One of the Brooklyn news-

papers, that raked the city with a fine tooth comb for items, made a column report of his lecture, which fell under the eye of the Philadelphia Academy of Natural Sciences, and that body paid half the expenses of his brilliant expedition of 1891-92, when he established the insularity of Greenland and fixed the northern limits of the great ice cap, over which he sledged for 1300 miles.

At this outset of his career Peary knew nothing of the art of enlisting public sympathy and interest in his ambitions and attracting the co-operation of men able to give him the financial support his enterprises would require. He was modest, almost painfully so. He was sensitive to a fault. The qualities of the leader of men, the attributes of a general who can plan a campaign and carry it to success, were born in him; but to this day his face will mantle like a boy's if his achievements are extolled before an audience; and if he reads or hears words of unkindness you may see the hurt of it in his face. He began without faculty for self-advertisement, but he had a good substitute for it. His downright hard work and his genius for mastery in the field that absorbed him were bound, in time, to arouse interest, to stimulate confidence, and to bring to him, somehow or other, the sinews of war, without which he could not go far.

AT FIRST AN ARCTIC EXPLORER, NOT A POLE-HUNTER.

For years before the public heard his name Peary was laying foundations for the career as an Arctic explorer that has won him enduring fame and placed him in the class with Livingstone and Stanley in Africa and Prjevalski in Asia. He spent his evenings mastering the literature of Arctic exploration in all its bearings; and to his practical sense there appeared to be much that was wrong in method and mistaken in the appliances employed. His taste for mechanics, his training as a civil engineer, his discipline in field work where unexpected problems demanded instant and adequate solution,—all tended to flood his mind with new ideas as he read thousands of pages telling what explorers had done and how they did it. He spent most of his leisure, one winter, testing various kinds of wood to decide upon the

best timber to use in sledge building. • His first reconnoissance on the ice cap of Greenland was made especially to try some of his theories of Arctic field work.

The result was that he had fully evolved his own plans and methods for Arctic exploration before the public knew him as an explorer; and all the time he was saving every dollar he could spare from his small salary to put into his first important expedition. Half of its cost was defrayed from his own hard-earned money.

Peary was especially glad, in the early days, to meet those who could converse on Arctic topics, appreciate his enthusiasm, and intelligently discuss his plans. But in his many delightful table talks with friends in the '80s and early '90s he seemed to take little interest in the North Pole quest and was likely to change the subject if it were mentioned. It is not improbable that from the first he had the Pole in view as the ultimate goal of his ambition, and he may have revealed the truth to those who were nearest his life; but to others his talk was all about Greenland problems: Was it an island or a continent? How would it be shaped on

the maps when the unknown coast lines were surveyed? What was the nature and extent of its great ice cap? The wish to supply the answers to these questions seemed completely to absorb him. He had fully answered two of them and was preparing for his third expedition to North Greenland when it first became evident to his geographical friends in general that the attainment of the Pole itself was coming into his sphere of activity.

GUARDED IN EXPRESSION.

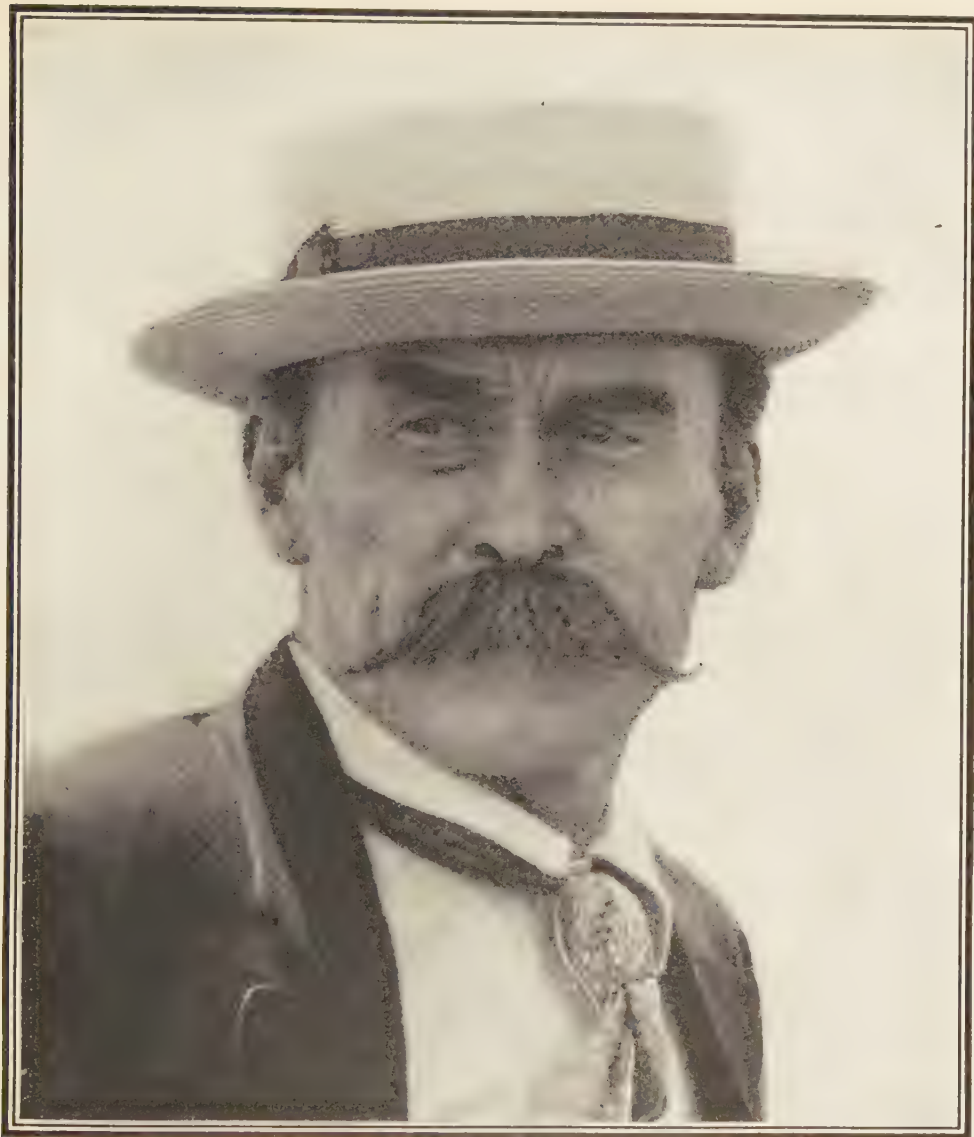
This illustrates one of Peary's strongest characteristics. He is not in the habit of talking about plans that he has not matured. He keeps his own counsel and no one is likely to know what may be teeming in his brain till he deems the time ripe for initiation. This is a part of his generalship both at home and in the field, and it is a policy or habit that he shares with many other great explorers. Some of the many men who have served him in the Arctic have complained that he is too uncommunicative. He certainly has the gift of keeping to himself what he sees no reason for disclosing; and to some of his assistants he has told no more than he thought they needed to know. Peary is a gentleman of culture and fine feeling, considerate of others and most agreeable and kindly in his relations with his fellows, but he can be as silent as the Sphinx if it suits his purpose. He shares many of the qualities that made the career of Henry M. Stanley great. Neither of them, for example, has had any use for assistants whom they tried and found wanting; and such men have been full of bitterness and criticism on coming home, though the fact was that, even if they tried to be useful, they had failed; and leaders are not always patient with incompetency.

Few men have ever been more completely absorbed by their idea than has Peary. He never went the length of some great men who sacrificed family and friends to their hobbies, but he pushed a good way toward that limit. Men who have known him well for twenty years have never heard him express an opinion on politics, art, literature, or religion. Like all men of mentality and information he has opinions on these and other topics and his range of general interests is as wide as that of most men who are distinctly specialists. But he is so full and overflowing with the things which interest him most that scarcely any one, outside his inner circle of friends, knows any other side



Photograph by Brown Bros., N. Y.

COMMANDER PEARY AND CAPT. ROBERT BARTLETT
ON THE DECK OF THE "ROOSEVELT."



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COMMANDER ROBERT E. PEARY.

of him. Hundreds of men who think they are well acquainted with him have seen only the gentleman, the captain of men, the enthusiastic explorer.

AN EXPLORER WITH DOMESTIC INSTINCTS.

It may seem strange to say of a man who has been happily married for twenty-one years and has spent only three of them in the home of his family that domesticity is a passion with him. It would be an impertinence to speak here of this phase of Peary if it were not the honest desire, however in-

adequately fulfilled, to give some glimpses of the man himself, who is known to the world at large only as the brilliant explorer. Home is the dearest place on earth to him. Those who have seen him there know it. Those who have heard him speak of his long years of separation from his wife and children and his lamented mother know it. There are those who, in the way of duty assigned by the explorer, have had occasion to read some of his field note books. They know that what he wrote under his tent flap, in the howling gales on Greenland's ice

cap, 7000 feet above the sea or on the frozen ocean was not always merely the work of the day. The record often closed with the mention of a name or a sentiment or the date of an anniversary. The thought of home has been ever with this man among all the ordeals and vicissitudes of his northern life.

THE STERN SCHOOL OF THE ARCTIC.

The gentle and sensitive qualities of his nature are in strange contrast with the sterner stuff that is in him. There has been something of the militant in his discipline and leadership wherever he has led the way. He has been the master of every phase of his expeditions. What he learned from books and in his home laboratory was only the elements of his trade. The great school in which he studied was the Arctic itself. There he rubbed off the rough edges of his theories and fitted them for practical use. His natural abilities have been so trained, shaped, and developed by many years of field experience that he is now widely recognized as the one man who has reduced the régime of polar exploration to a science. There is

no doubt that his last expedition, in its personnel, outfit, and plan, made altogether the best machine for the attainment of results that was ever put to work in the polar zones. Every expert will read with enthusiasm the story of its perfect working; and Peary's next book will be not only the story of the conquest of the Pole but also a manual of methods to be consulted by other explorers.

Peary had rather more than his share of physical suffering in the Arctic, for twice he was seriously maimed. But he would doubtless say that he could endure broken bones and amputations better than the mental torture that comes to every commander of a polar party. It is so easy for some circumstance, trivial or great, to cause everything to go awry. It was a little accident that delayed Peary's oil supply for a fortnight last spring, but it came near turning his crowning success into a dismal failure.

THE FINANCIAL STRUGGLE.

There are those, however, who believe that Peary would much rather endure the soul-racking uncertainties of Arctic work



Photograph by Brown Bros., N. Y.

MRS. PEARY, HER DAUGHTER MARIE ("THE SNOW BABY"), AND SON ROBERT E., JR.



Photograph by Brown Bros., N. Y.

THE CREW OF PEARY'S SHIP, THE "ROOSEVELT."

than the mountainous and repellent labor of trying to raise funds for it. As an investment, most capitalists regard polar enterprise as likely to make no returns, even in glory. The time came when Peary's work required large financial support, and unfortunately he had no taste or talent for begging money. He buckled to it because he had to, and, somehow, the money always came, much of it after the explorer was driven nearly to despair.

He was at times almost an object of sympathy. He had never sought public notice excepting as his work commanded attention. But he has seen many a day when the prospect that he could raise another dollar was very slim; and to keep in the public eye for the good it might chance to bring him, he was glad to lecture here, dine there, go anywhere, if only he might speak a few words about his next expedition and see it mentioned in the morning papers. He often paced his office floor half the night engrossed in schemes for providing ways and means. It happened that the greatest benefactor of his work, the late Morris K. Jesup, became interested in Peary while the explorer was in

the Arctic. One day Mr. Jesup listened to a discussion of Peary's latest work and prospects in the council room of the American Geographical Society in New York, and, a few days later, two gentlemen, at his request, met him at the Down Town Club with printed extracts from the journals of home and foreign scientific societies telling what he had done. But even Mr. Jesup's munificence did not fully meet the need. When Peary was equipping his expedition of 1905-06 and his vessel ought to sail in ten days he sorely needed \$10,000 more. He knew not where to turn for the money, but, at the last moment, it came in a lump. The day before he said: "I'm at my wits' end. I believe I'd accept a nickel from a newsboy."

PEARY'S PATRIOTISM.

Some European men of science were a little perplexed by the explorer's cabled announcement that he had nailed the Stars and Stripes to the Pole. They thought his expression was not scientific. There was no bombast or affectation in his figure of speech. The man is intensely patriotic. He had told scores of audiences that our flag should be

the first to float at the North Pole. We shall hear him argue soon that ships flying our flag should complete the work so grandly begun by our Wilkes when he outlined coasts of a great segment of the Antarctic continent. The flag represents to Peary the greatness and the honor of this nation, and his allusions to it are as genuine as gold. We may smile at his dispatch, but we are glad our flag got there first.

HIS RECORD AS AN EXPLORER.

Peary's long campaigns opened in Greenland in 1886, when he began his brilliant work on the inland ice, entering it near Disco and sledging over the ice cap to a point about fifty miles from the sea. In 1891-92 he visited north Greenland for the first time, landing at McCormick Bay, southeast of Smith Sound, and in the following spring he traveled over the inland ice to the northeast, 650 miles, discovering the north coast of Greenland and showing that it is separated from an archipelago of large and small islands by Independence Bay and Peary Channel. He found that the inland ice, which rises at the divide to 8000 feet above the sea, ends a considerable distance to the south of the northern shores of Greenland. On his third expedition, in 1893, he again sought the inland ice as a route to northeast Greenland for extended explorations, but terrible storms defeated his purpose. All the party excepting Peary and two volunteers returned home in the fall.

In the spring of 1894 the three men with a few Eskimos reached Independence Bay again, and would have perished if they had not found musk-oxen there. They returned to camp at Bowdoin Bay and reached home in the fall of 1895. In 1896 and 1897 the explorer made summer voyages to Greenland and brought to New York three large meteorites, one of them the largest known in the world. On his first north-polar expedition in 1899-1900 Peary rounded the northern point of the archipelago north of Greenland, surveyed its northern and eastern shores, and reached 83 degrees 54 minutes on the Arctic Ocean, the nearest approach to the Pole in the Western Hemisphere made up to that time. In 1901 he renewed his attempt on the Pole, but the terrible condi-

tions defeated his advance at Lincoln Bay. In 1902, in spite of the disintegrating pack ice, he reached 84 degrees 17 minutes north. In the great expedition of 1905-06 he attained 87 degrees 6 minutes, surpassing the records of Nansen and the Duke of the Abruzzi in the Eastern Hemisphere. In his last expedition, 1908-09, he attained the North Pole.

The total cost of the Peary expeditions has been about \$500,000. The collections brought back to this country have been enormous, and a large amount of scientific data, relating chiefly to glaciology, geology, and ethnology, have been obtained. The value of the research work of the expedition was largely enhanced by the scientific specialists who repeatedly visited the Peary stations on his supply ships.

The criticism has been made that Peary has come to regard the American Arctic as his own preserve, which no other explorer should enter. On two occasions he has, indeed, been a little strenuous in his protests when two men entered the field he had occupied with the announced intention of doing the very work that was engaging him and by the very methods he had evolved for doing it. Peary has revolutionized methods of living, travel, and research in the Arctic, and, to put it mildly, it would provoke a more saintly person than most of us to see a man come to fight us with our own weapons. The action of Sverdrup and Cook, and of others before them in various parts of the world, is not regarded by geographers as courteous, no matter how richly they may be rewarded by the spoils of exploration.

Not least among the laurels of Peary is the spotless reputation he bears in the sight of all men and the confidence the world reposes in him. Everybody believes that if he had been able to approach only within ten miles of the Pole he would have claimed nothing more. He has come out of the Arctic, after twenty-three years of service, with clean hands. He has ended his great work. He has reached the Pole, has added immensely to our knowledge of the lands where he lived, and has left a rich legacy of experience for future explorers. The work he has done is great. It stands sure and will perpetuate his name.



DR. COOK LANDING AT COPENHAGEN ON HIS RETURN FROM THE ARCTIC.

DR. COOK: THE MAN AND THE DEED.

Interview Given Exclusively for Readers of the Review of Reviews.

BY W. T. STEAD.

I ARRIVED in Copenhagen about half-past eight on Saturday morning, September 4. Shortly after nine I was one of a dense crowd that awaited the arrival of Dr. Cook from the North Pole. The American flag hung in the place of honor overhead, flanked by the white-crossed red of the Danish flags. The *Hans Egede*, a Danish steamer named after a famous Danish explorer, lay a few hundred yards distant, with the Stars and Stripes flying at the topmast, conspicuous in the sunlight, high above the many colored flags which fluttered from her rigging. The sun shone bright on the traveler's homecoming. Blue sky, dancing water, and a pleasant breeze cheered the eagerly expectant throng which waited for the first sight of the man from the North Pole.

Making my way with some difficulty

through the press, I reached the cleared inclosure, where, conspicuous by his stature, spare and erect, a veritable son of Anak, the Crown Prince of Denmark, in his capacity as president of the Danish Geographical Society, stood chatting with members of his committee. Presently a carriage drove up, and the American Minister, Dr. Egan, joined the little company. Minister of Commerce Hansen, who, like his Premier, Baron Holstein, speaks admirable English, was there also, with Count Hovgaard, commandant of the King's yacht, who has himself been in the Arctic. With them there were admirals, professors, and a crowd of the representatives of the world's press.

It was very pleasant gossiping with the Crown Prince and the Ministers about the event of the day as we awaited the signal from

the *Hans Egede* that all was ready for the landing. The Crown Prince saw it first and at once prepared to go on board. A small steam-pinnace bustled up to the landing; the Crown Prince and his committee, Mr. Egan and Mr. Collins, of the Associated Press, took their seats, and in a moment they were off. Another boat, apparently ordered for the use of a university professor and a friend or two, followed in her wake. Rowboats pushed off, and by the time the Crown Prince reached the steamer she was almost surrounded by a flotilla of small craft. Threading their way through the rowboats, the Crown Prince's pinnace reached the *Hans Egede*; another moment and they stood face to face with Dr. Cook. The ceremonial was of the briefest. In a few hearty words the Crown Prince, who speaks English, like all the rest of his family, bade Dr. Cook welcome to Europe, congratulated him upon his safe return from the perils of the Arctic, and expressed the satisfaction of the Danish nation that he should have come first to their capital. Dr. Cook bowed and said thank you in half a dozen words. But when Minister Egan introduced himself, Dr. Cook's face lit up with a smile as he grasped his hand, exclaiming, "I am so glad to meet an American," with hearty emphasis. "I have not seen an American for ever so long." A few more words and the ceremony of official welcome was over. The popular welcome was preparing. As the little craft with Dr. Cook on board came skimming over the sunlit waters there was a simultaneous rustle and rattle as a hundred photographers, professional and amateur, prepared their kodaks for action. It was a capital day for outdoor photography, and they made the best of their opportunity. Another moment and the shore battery of cameras was focused upon the steps of the landing where the Crown Prince's pinnace touched, and Dr. Cook landed.

A roar of cheering went up as Dr. Cook, taking off his cap, stood for a moment and bowed his acknowledgments of his welcome. There was no mistake as to his identity. The whole interest of thousands of eyes centered on his brown and weather-beaten face. The man from the North Pole, whose hand we grasped with words of welcome, had a well set-up figure about five feet eight inches in height. His hair was sandy brown, rather coarse in texture. He wore a mustache, but no beard. If the points of his mustache were turned upward, he might, as his portrait shows, be mistaken for the German Emperor,

—if that war-lord could ever be conceived in a loose dark gray slouch morning coat, a sailor's cap, and moccasined feet.

II.—DR. COOK IN COPENHAGEN.

His blue eyes seemed at first a little dazed at the sight of the cheering multitude. A lady thrust a bouquet of roses into one hand. In the other he carried his cap. Then slowly, as he began to advance up the few steps that led from the landing, the Crown Prince bade him *au revoir* and stepped with some difficulty through the crowd. Another moment it would have been too late. For the eager multitude, no longer restrained by the police, who mysteriously vanished,—all save one short but gallant unit,—surged down upon Dr. Cook, cheering and crowding him backward. I was immediately behind him when the crowd burst, and seeing that he was ill-prepared for a scrimmage, I flung my arms round him under his armpit, and pressing backward with all my weight I somewhat eased the pressure from behind. In front the solitary constable fought his way like a Trojan, followed closely by Minister Egan; behind him came Dr. Cook. Another journalist, Mr. Weil, of Berlin, the American representative of an English paper, came to our help, and the four of us, surrounding the center of the press, struggled, staggering, swaying hither and thither amid the cheering, excited throng. Dr. Cook had to give up his flowers, one of his cuffs was torn off and carried away as a trophy; once or twice it seemed as if we should be carried off our feet, but although one man fell he was not trampled on.

My face was close against Dr. Cook's left ear, and as we pushed backward and forward and swayed to the right and the left, making slow advance toward the carriage that seemed as inaccessible as the North Pole, I began a series of "Talks with Cook," the substance of which I shall embody, as best I can, in this character sketch. I was close to him in all conscience. If I did not exactly hug him to my heart, I had a good hearty grip of him round the chest. There is something in the touch of a man, especially when you are at close grips with him. Once or twice there seemed actual danger, especially when the crowd drove us across the low wire fencing of the Gardens of the Meteorological Department, and Minister Egan declared afterward that but for the bodyguard Dr. Cook might have returned from the North Pole only to be crushed to death on the



DR. FREDERICK A. COOK.

(From a photograph taken at Copenhagen in September.)

threshold of civilization. Once or twice there was a dangerous movement to lift Cook shoulder high, but it was checked, and at last we struggled and fought our way into the building of the Meteorological Department, a very appropriate place to afford Dr. Cook his first shelter in Europe. After Dr. Cook had said a few words

from the balcony to the cheering crowd we were smuggled out of the back door. Minister Egan drove me off to the Hotel d'Angleterre, leaving the Geographical Society to conduct Dr. Cook to the Hotel Phoenix, where he remained as their guest during his stay in Copenhagen. If I dwell at some little length upon this little episode at the landing I do so because it was in a way symbolic. That was the first, but not by any means the last, in which I had, in a metaphorical sense, to be at his back in a tussle, nor mayhap has its significance even yet been exhausted.

When the news arrived that Dr. Cook was coming to Copenhagen Dr. Egan was asked by the Danish Government what steps he proposed to take. Dr. Egan replied that he proposed to do nothing. He had no official information as to what Dr. Cook had done or had failed to do. He knew that Dr. Cook was an American citizen of good standing, a medical man, an author, and an explorer. If he came to Denmark it would be his duty as American Minister to render any service that he might require. But it was utterly impossible for him as American Minister to give any assurances on the subject as to whether Dr. Cook had or had not discovered the Pole. He believed him to be an honest man, but beyond that he could not go.

The Danish ministers recognized the impossibility of Dr. Egan taking any other attitude. It was as impossible for them as it was for the American Minister to pronounce authoritatively on the strength of Dr. Cook's letter to the press as to whether he had or had not carried off the most coveted prize in the whole realm of geographical exploration. But something had to be done. They discussed the matter, taking counsel with the committee of the Geographical Society. Reports received from their representatives in Greenland seemed to them to justify their according Dr. Cook an official welcome. He was no adventurer. He was certified as a reputable American. He had formally and publicly stated that he had discovered the Pole. His letter describing his journey did not seem, excepting for one or two obvious misprints, otherwise than a trustworthy narrative of how the Pole was discovered. Some day or other the Pole would be discovered very much in the way that Dr. Cook said he had found it. Old Arctic explorers,—who abound in Denmark,—thought his narrative *primâ facie*

worthy of credence. So it was decided that a reception committee should be formed; that the government, the Geographical Society, the City Council, and the Chamber of Commerce should take part in his welcome; that the Crown Prince should be the first to welcome Dr. Cook to Denmark.

This decision was duly made known to Dr. Egan. It necessarily modified the attitude of aloofness which he had at first intended to take up. If the Danish Government, to which he was accredited, decided that there was *primâ facie* evidence to justify it in according an official welcome to an American discoverer who claimed to have discovered the North Pole it was manifestly impossible for him as the representative of the American Government to do or to say anything that might in any way tend to discredit an American against whose record there was no black mark. Besides, Dr. Cook, by right of prior discovery, might have established a claim good in international law, which the United States might in some future time find it expedient to advance and defend. In view of such a contingency, Minister Egan felt quite rightly that it would never do for him through any punctilios of official etiquette to take an attitude which might be quoted in after years to prejudice the claim of the United States to the North Pole.

Hence, it came to pass that Dr. Egan accompanied the Crown Prince when he went on board the *Hans Egede* to welcome Dr. Cook to Europe, and to gladden the eyes of the explorer by the sight of the first real live American he had seen for many weary months.

When Dr. Egan saw Dr. Cook face to face he liked him. And when he got to know him he liked him still more, an experience by no means confined to Dr. Egan. He felt that Dr. Cook was an honest man and a good American. Believing that, he treated him with the lavish hospitality which no one knows better how to dispense than a warm-hearted American whose father hails from Tipperary.

So Dr. Egan treated Dr. Cook as an honest man, and Dr. Cook, who in business affairs is almost as innocent as a child, welcomed with almost touching gratitude the most obvious advice which any American Minister would give to any American citizen,—if, which is almost inconceivable, the citizen had so lost touch with the little things of civilized society as to need such advice.

Dr. Egan is a poet and a novelist, an old

newspaper man, and before he became diplomat he was professor of English literature at the Catholic University. Add to this that, as becomes a man of Irish descent, he belongs to the Catholic Church, that he adores the memory of Theodore Roosevelt, that he invented a sauce that delighted James Russell Lowell, that he has just published, through the Century Company, a delightful volume entitled "The Wiles of Sexton Maginnis." And it will be seen that, whether or not Dr. Cook discovered the Pole, he did the press of the world a good turn by deciding to come back to civilization by way of Copenhagen.

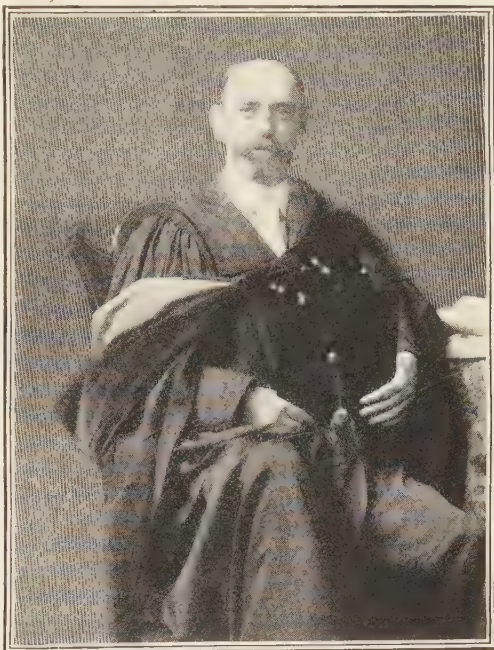
III.—THE MAN FROM THE NORTH POLE.

Now for the main questions: "What about the man from the North Pole? How does he strike you as a man?"

To which I answer, and I think almost all of us who went to Copenhagen would agree with me in replying, that he does not strike us as a man, but rather as a child,—a naïve, inexperienced child, who sorely needed some one to look after him, and take care of him, and tell him what he ought to do in his own interest. It was really almost pathetic to see his efforts to readjust himself to the busy, bustling, new environment of modern civilization.

When we were struggling through the crowd at the landing I asked him to let me arrange for him a general interview, at which all the pressmen could be present. "Yes," he said, "but put it off till to-morrow." As if the ravenous maw of the world's press, with its teeming special editions, could wait complacently for twenty-four hours before hearing what he had to say! "Why this hurry?" he was always asking, with the absent air of a man who has lived six months at a time in the timeless solitude of the Arctic night. As for his inability to protect his own interests, even in matters of pounds, shillings, and pence, it was almost pitiful.

And as he allowed himself to be exploited in money matters, so he displayed an almost infantile inability to see the obvious precautions which he ought to take for his own defense. I think it was this *naïveté*, this often most exasperating inability on his part to forestall hostile criticism, to pacify ignorant but clamorous interviewers avid for "proofs," the nature of which they do not understand, that did as much as anything else to convince everybody of his honesty. He either neglected or threw away the most



MINISTER MAURICE F. EGAN.

(The first American to greet Dr. Cook.)

obvious chances. He had at his absolute disposition the most expert pens in Europe, and he rather snubbed than welcomed offers to help him. Everything that a clever rogue would do instinctively if he wished to hoax the public Dr. Cook did not do. When he was asked questions, he answered them simply, without flinching, or dodging, or beating about the bush. Where he had made a mistake he confessed it. But as for making out a good case for himself, or of adopting any *ad captandum* method of appeal, he could no more do it than a child.

Whatever may be the cause, Dr. Cook leaves the impression on those whom he met at Copenhagen that he is the furthest possible remove from the type of man who would set out to befool the public on a matter of such universal interest. He seemed to us all an honest man at the first acquaintance, and those who saw most of him believed most in him. At the famous interview with the hundred journalists, many who came full of prejudice against him went away convinced that he was straight. He was tired. He had been on the go from the time he had come ashore. He had had his first interview with the King. He had been spirited off to see Prince Waldemar, and he had to dress for the banquet in the evening. But he sat

at the table for nearly an hour answering all questions, disregarding all imputations, no matter how unpleasant, explaining everything in the simplest and clearest fashion.

If this man were an Ananias, then indeed he must be the champion expert of all false witnesses.

A rather annoying thing about this infantile side of his character was his inability to make up his mind and stick to it about almost anything. Perhaps this was due to his consciousness of being in strange surroundings and feeling that he ought not to be governed by his own judgment. I think the one dominant feeling which animated him was anxiety to get home to his wife. But under the pressure of various influences he swayed first in one direction and then in the other. He was going to Brussels and then to Paris. Then Paris was dropped; but he must go to Brussels even if the Atlantic liner had to be stopped at Flushing for him to go on board. He wanted to go home as fast as possible, but to please the King, who had been so kind to him, he consented to go in the Scandinavian *Oscar II*. And at the last moment he gave up Brussels and embarked at Christiansand. As it was about his return journey, so it was about everything else. The last thing he said to me before I left was that he was determined not to say a word to any one about Peary's charges. But the first thing I read in the English newspapers on arriving was that he had given out two interviews on the subject before I left Copenhagen.

These things are probably all due to the modesty and diffidence of a man suddenly called upon to act in strange environment. If he had been as indecisive and as changeable in the Arctic regions he would never have got anywhere, and certainly could never have got home. Yet there was never any trace of impatience or of fear. He was always as cool as a cucumber, calm, composed, and collected. At table he was a pleasant companion, not at all a man of a flirtatious disposition, feeling, indeed, somewhat shy in the presence of ladies, but knowing how to say a pleasant and kindly word.

Dr. Egan chose to maintain that he had in him something of the Redskin, but I never quite could see what he meant by that, unless it was a certain sedate composure which never deserted him. The supreme moment to test him was when I brought him the news of Peary's arrival at the Pole. He was keenly interested, expressed his satisfaction,

discussed the authenticity of the telegram, and certainly betrayed no sign of excitement. When at the *Politiken* dinner his hosts adorned him with a horseshoe of beautiful roses, he wore the floral decoration as if he had been crowned with roses all his life. I never heard him say an ill word of any one of those who abused him or pestered him with perpetual demands that he should stand and deliver proofs on the spot that he was not a liar and a scoundrel. At the end he was a bit worried with the ceaseless hail of interrogatories, pressed mostly by persons who had no earthly right to bother him, but he remained to the end imperturbable, and always disclaimed being tired. The ever-growing heap of cablegrams and telegrams rather appalled him. The only letter or telegram he seemed to care for was one from his wife. Most of the others he left to answer themselves.

He is not, I should say, an imaginative man, nor a religious man. An old lady called upon him to say she had had a message from the Beyond telling her that he owed his life to the prayers of his daughters, but he did not seem to take much stock in her revelation. Neither is he a man of letters, although he writes very well. On the public platform he is heard to advantage. His voice is clear, without being very resonant. He speaks clearly, lucidly, and without hesitation. There was no gesticulation. He went straight on with his lecture as if he were a university professor methodically giving an expository lecture to his class. His great anxiety was to confine himself to what he had already said, and to say no more.

IV.—COOK'S PREVIOUS CAREER.

Frederick A. Cook is an American. He is proud of it, like other Americans, and he considers the fact that he was born in America is a sufficient credential as to his nationality. He is not one of those who wish to go squinting behind the arras of history in order to discover that his forebears at some distant date held high rank among the nobles of the Old World. He is a plain American and he wishes to pass as that. But if he does not wish to claim his ancestors, the other descendants of his ancestors are bent upon claiming him. When I halted at Hamburg on my rush northward I heard that the Germans had already claimed him as their own. A little later I was assured that he was one of the sons of Israel. In the fulness of time, when his discovery has



THE EXPLORER'S RETURN TO CIVILIZATION.

(A snapshot photograph of Dr. Cook taken at Copenhagen soon after his arrival, on September 4. He is accompanied by the Crown Prince of Denmark, on the right, and Mr. W. T. Stead.)

been confirmed, I await the inevitable corollary in the discovery of his essentially Scotch nationality, which, of course, can always be proved in the last resort by the familiar doctrine that the real name of Eve's husband was not Adam, but MacAdam. To clear up the matter I begged Dr. Cook to raise his objection to look further back than his birth and to tell me from what part of the Old World his parents came.

"If you must have it," said Dr. Cook, "I am of pure German descent. My family name, down to a few years before my birth, was not Cook, but Koch. My father was born in Hanover; my mother came from some place in South Germany. They migrated to America before the middle of last century and settled in a small town in Sullivan County, New York, on the Delaware River, about 120 miles from New York City. There my father practiced as a doctor, and there in 1865 I was born, the last of a family of five."

"How and why did you drop Koch and become Cook?"

"The change," said Dr. Cook, "was none of my making or my choosing. It was, as has been so often the case, due to the unintentional blunder of a government clerk. In the Civil War my father joined the army. On the roll of the army medical service his name instead of being entered as Koch was transcribed as Cook, and Cook it has been ever since. All the rest of my father's family, however, are Kochs to this day."

I asked him as to his early boyhood. Was the instinct of exploring and adventure early developed? Was the boy the father of the man?

"I don't think so," he replied. "At least, I can remember no stirrings of the explorer in me when I went to school. My father died in 1870, leaving my mother and her young family to face the world alone. In order to facilitate our education, and the better to make a living, my mother brought us all to Brooklyn, where I got my schooling in the common school, like other Brooklyn boys. I have just had a cablegram of congratulation," he said, "from that school,

but I don't think I remember any one who is there. I know I was there, and that is all."

"When did you leave school?"

"The usual time, and then I set about earning sufficient money to enable me to take my course at college. How did I make my college fees? That is another story, into which I have not time to enter now. It is enough to say that I earned it myself, and was able to enter the medical department of the University of New York, where in due course I graduated, and having got my degree, I looked round to see what was to be done."

"Had the call of the wild reached you at college if it did not at school?"

"I think not," he replied in his quiet, matter-of-fact, simple way. "I don't remember having ever heard it then. I was not especially fond of books of travel nor attracted by Arctic adventure. I was simply an ordinary American young graduate, who, being duly qualified to practice medicine, looks about him to find out how he can make a living."

"Then how was it you took to the Arctic?"

"In the first case, simply and solely in order to make a living. I was a young medical man with no practice and without any immediate prospect of finding a post. Six months passed after I had left college, and I was fretting at having to wait so long idle, when one day I saw a statement in the papers that Peary was fitting out an expedition to go to the Arctic and that a surgeon was wanted. Without feeling any special inspiration or compulsion I sat down and wrote out an application for the post. Two months passed before I received any answer. I had almost given up hope, when I was startled by receiving a telegram to go to Philadelphia to meet Peary. I went. He saw me and I was engaged to serve as surgeon in that expedition. I graduated in 1890. I joined the expedition in 1891 and served until 1892. There was no money in it, but there was a living, honor, and,—what I did not expect to find,—a new and absorbing passion, which ever since dominated my life."

"You mean that you heard the call of the wild?"

"You can call it that if you like. To me it is more the voice of the Arctic, the thirst for the great icy expanse, the Polar Sea. It is an acquired taste. If I was born with it, it was so latent that I never perceived it.

None of the other members of my family has it. But it came to me in my first Arctic trip, and it has never left me."

I recalled what he had written in his book, "The Top of the Continent," in which, before describing his ascent of that monarch of the mountains, he speaks of being driven "by the working incentive of pioneer adventure," "the spiritual exhilaration of discovery." It was shared alike by alpine climbers and Arctic explorers. I repeated to him the following passage:

In climbing there is an inspiration expanding with the increase of vision, which is capable of much development. Hardships, both of mountaineers and Arctic climbers, are followed by a similar movement of mental awakening, of spiritual aspirations, and of profound and peculiar philosophy. Thus the stream of a new hope, of dreams and raptures is started, and this stream seeks a groove down the path of life forever after. It follows that he who ventures into the polar arena or the cloud battlefield of high mountains will long to return again and again to the scene of his suffering and inspiration.

"I suppose it is something like that," said Dr. Cook. "It is a mystery, but it is a fact. Often and often I have asked myself what are the pleasures of the polar seas. Privation, cold, hunger, peril of frostbite and of death, solitude, unceasing and sustaining exertion,—these are manifest enough. In themselves they are not very fascinating. You sometimes recoil from them and wonder why you ever pushed into the great wilderness of ice. You escape, vowing never to return. But after a time something revives in you. Your mind dwells more and more on the indefinable delights of the Arctic. Something keeps calling, calling, calling, night and day, until at last you can stand it no more, and you return, spell-drawn by the magic of the North."

"The North!" I exclaimed. "But is it not the same in the South? All Shackleton's companions are crazy to go back to the Antarctic. You, also, have been in the southern polar seas."

"Yes," he replied, "I went as surgeon with the Belgian Antarctic Expedition in 1897-99, but our experiences were not pleasant. If we had been able to go overland like Shackleton it might have been different. But we were in the ship all the time, in the midst of wind and storms, and hummocked about so much you never ventured to leave the ship for a day. It was very disagreeable, nothing like the Arctic. I gladly leave the South Pole to Shackleton."

"After you returned from the Antarctic you rested a while?"

"Yes, and got married about ten years ago. But in 1903 the passion of exploration reasserted itself, and in that year I headed the pioneer expedition for the ascent of Mount McKinley. I started in June, 1903, and came back three months later, having failed to gain the summit. Three years later I went back, and after a long period of nosing round the mountain we struck a road which brought us to the top, 20,390 feet altitude. That was on September 16, 1906. But you have read all that in my book 'The Top of the Continent.'"

"Yes. I read it in the train, and it struck me it was a tougher job getting to the top of McKinley than it was getting to the North Pole,—the rarefied air, the immense altitude——"

"No," said Dr. Cook. "The whole ascent at the last was so soon over,—up and down with a rush. I was only four days up and four days down when we found the road. The North Pole was a very different matter."

"But so far as I can judge the principles which you first learned on Mount McKinley were those you put in practice with success at the Pole."

"Precisely. My forty-pound kit per man for the ascent of the mountain was the pioneer of my irreducibly minimized outfit for the rush to the Pole. We started three men for the summit and three for the Pole."

"Yes," I replied, "but you only got two to the top of McKinley, leaving Dokkin half way up."

"There was not enough food for three, and Dokkin wanted to stay, so Burrille and I went up alone, as you know."

"What is the meaning of the statements in the newspapers as to the doubts about your surveys?"

"Only a controversy as to some fifty or seventy-five feet in the altitude. There was a difference between the trigonometrical survey and the barometrical observation. But even 100 feet is a bagatelle when you are measuring a mountain 20,000 feet high."

"Then after McKinley you rested for a year, and started off in 1907?"

"Yes. I sailed with my friend Mr. J. R. Bradley for the Arctic regions in July, 1907, on a hunting and exploring expedition in northern Greenland, and half hoped that I might make that expedition a jumping-off



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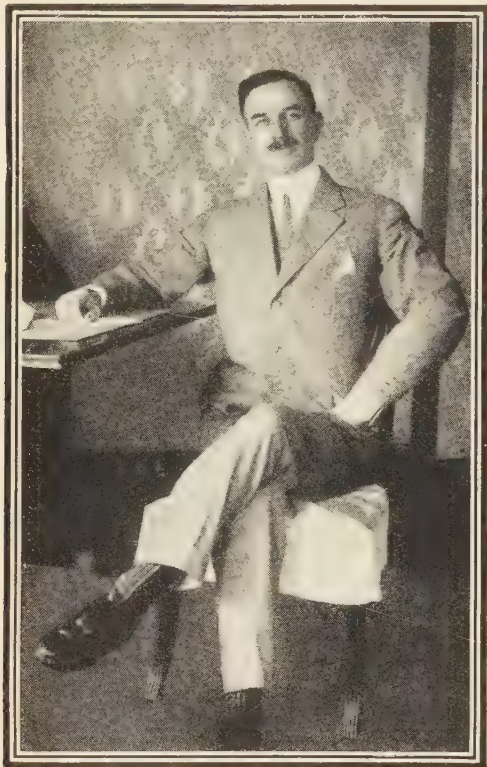
DR. COOK'S WIFE AND DAUGHTERS.

place for the Pole. We made our preparations accordingly, and so it came about."

V.—THE START FOR THE POLE.

Dr. Cook did not start for the Pole with a procession of brass bands. The newspapers of America were not converted into a huge megaphone for the purpose of heralding his departure. Hence the report of his arrival at the Pole was received with incredulity and surprise. Mrs. Browning's warning against pumping spring water unawares upon a gracious public full of nerves may be varied and extended to the sudden blurting out upon a humdrum world such a startling announcement as that the great prize had been won by a man who nobody knew had ever entered for the stakes.

But Dr. Cook did not herald his departure with a great fanfaronade of proclamation as to what he was going to do, because, in the first place, as he said, he prefers to defer talking until after doing, and, in the second place, he did not start out with any fixed and definite intention of going to the Pole. On this point Dr. Cook is quite explicit. There was an off-chance,—the off-chance which no Arctic explorer ever loses sight of,—that they might have a try for the Pole. Therefore, Mr. Bradley, who, being a millionaire, can provide for contingencies, provided a thorough equipment for such a limited dash as Dr. Cook alone regarded as feasi-



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MR. J. R. BRADLEY.

(Who financed the Cook polar expedition.)

ble. But the primary object with which the *J. R. Bradley* sailed northward was to afford its owner and Dr. Cook sport and recreation in the high latitudes. It was not till a few months later, when they arrived at Smith's Sound, that the project took definite shape.

When they got to their hunting ground they found a great bear hunt in progress. All the most capable Eskimos and the best dogs of the region were assembled. Bears were plentiful and food abundant. Dr. Cook told us that it was after he found every essential for Arctic exploration present he thought the circumstances propitious for a dash northwards.

On October 5 Mr. Herbert L. Bridgman, secretary of the Peary Club, received a letter from Dr. Cook as follows:

"I have hit upon a new route to the North Pole, and will stay to try it. By way of Buchanan Bay and Ellesmere Land and northward through Nansen Strait over the Polar Sea, seems to me to be a very good route. There will be game to the 83d de-

gree, and here are natives and dogs for the task. So here is for the Pole."

This was to pass over Sverdrup's country, across Heiberg Island, and so north. By this means he hoped to avoid the easterly drift of the Polar Sea, to have a country supplying food in the shape of game in his rear. We have the advantage of comparing what Mr. Bradley, in October, 1907, said Dr. Cook proposed to do before he started and what Dr. Cook says he actually did do after his return. The much-discussed canvas boat, which some critics declare was invented as an afterthought by Dr. Cook after his return to Europe, was referred to by Mr. Bradley as having been provided by him to enable Dr. Cook to cross the open leads he might encounter in the Polar Sea.

I asked Dr. Cook about his equipment. He replied: "I had everything that could be carried on such a small expedition. My friend Mr. Bradley gave me *carte blanche*. I had twice as much money placed at my disposal as I cared to spend. If I had had a million dollars and an army of men I could not have been better equipped than I was for that expedition."

"First as to scientific instruments?"

"We had three first-class chronometers and a watch. The watch went wrong, but the chronometers lasted through. We had a splendid sextant, and barometers, and thermometers,—specially made for Arctic work. We had also pedometers and everything we needed. We did not take apparatus for deep-sea sounding, for it was too heavy. Everything was sacrificed to the supreme necessity of reducing the weight carried."

"Was your sextant of aluminum or of the ordinary make?"

"It was not of aluminum. It was the heaviest thing we had to carry, but as everything depended upon that I would not risk a lighter instrument. We brought it safely back. It is now on the *Jeanie* on its way to New York."

"And the other equipment?"

"All our cooking utensils were of aluminum. Our kitchen outfit weighed ounces instead of pounds. Our heating apparatus was what is known as the 'Brooklyn stove,' with the Nansen attachment, in which heat is generated by oil vaporized by burning alcohol. More heat is obtained that way by a less expenditure of fuel than in any other method. It is infinitely superior to the old wick lamp."

"What about food?"

"The essence of our commissariat system

consisted in this: Live on the country as long as you can by utilizing the land route where game abounds. When you strike the Polar Sea, where no life exists, live on pemmican, biscuits and tea. One pound of pemmican per day for man and dog will support life. Pemmican manufactured by Armour,—raw beef dried, pounded into powder, and mixed with tallow,—does not weep and carries more nutritive heat and force-forming qualities per square inch than any meat extract or other preparation. This pemmican was packed in 6-pound tins, which were enclosed in wooden cases uniform in size, which came in very handy as building material for our first storehouse."

"Did you take any alcohol?"

"Wood alcohol for vaporizing the petroleum; but wood alcohol is poison. Of other alcohol in any shape or form we did not take one drop."

"Are you a teetotaler?"

"In my earlier years of the strictest. After I was twenty-five, and in later life, I have taken a very little wine, and never touch intoxicants of any kind when exploring."

"What about tobacco?"

"I never smoke; and although the Eskimos like it, they are much better without it. To humor my men I took tobacco, but the supply ran out after a few days, and they worked better without it. They were more restless in mind when they smoked, and I was glad when it was done. They soon forgot all about it. In two days the craving for smoke had become a memory that rapidly faded away."

"But I suppose tea is essential?"

"Would you be surprised to hear," said Dr. Cook, "that we took only two pounds of tea with us in our dash to the Pole, and did not even use all of that? Yet we had tea twice a day,—two or three cups each man each time. Twelve or eighteen cups a day, all brewed out of two teaspoonfuls of tea,—not very strong, you say. But quite strong enough. We had to make it last. And the chief value of the tea was that it helped to make the hot water palatable in which we dissolved the $3\frac{1}{2}$ ounces of sugar each man had each day."

"What about soap?"

"Took one cake of soap. It was the only article we lost *en route*, and it was never missed. Washing is misery in the Arctic."

I suggested that perspiration might keep the pores clear.

"Perspiration is worse than washing," he

said. "Our clothes are all ventilated so as to prevent perspiration. Now and then extreme exertion compels sweat, and then look out. For the moisture freezes your furs into a cake of ice, out of which you have to be thawed."

"What about vegetables?"

"We carried none. You don't need vegetables in the Arctic; neither do you need salt. During our fifteen months' adventures we neither used salt nor vegetables. It is a delusion to think that either salt or vegetables are necessary for health. The Eskimos use neither. They never suffer from scurvy. Neither did I. They do not use salt,—dislike it, in fact. At first I tried them with it when we had fresh meat. They did not like it, and so I dropped it. When you eat pemmican you use no salt. I did not miss it. But when I got back to Greenland I ate salt like sugar."

"Did you have any medicine chest?"

"A tiny box of tabloids weighing six or eight ounces. We took no arnica, no liniments, no chloroform. We limited ourselves to the absolutely indispensable. I don't think my two Eskimos had more than five doses the whole time; then it was only for slight headaches after overeating. I had only very seldom to touch medicine, and then only for slight digestive troubles. So we brought most of our medicine home again."

"Though it was agreeable to come out of the wilderness of the interior to the semi-civilization of the coast occasionally, we usually found the coast environment induced ill-health for a time."

"In the pursuit of our routine we were almost constantly wet with ice water. For two months we traveled with wet feet. In rain or sunshine, in wind or calm, we went without coats, for the simple reason that with increased clothing we carried more water and, therefore, were less comfortable than with light, simple garments which would dry out easily. We slept in dripping jungles, on floating marshes, in wind-swept clouds, on wet snow, and in perennial frost, always with the worst element about us. Surely here were conditions to cause colds, rheumatism, pneumonia, and all kinds of winter diseases, but we never enjoyed better health. No colds, no rheumatism, and no sickness of any consequence were reported. But when we returned to the outposts of civilization and warm, dry beds, breathed the comforts of good shelter in luxury, were glutted with food and prevented from taking our accus-

tomed exercise, we promptly suffered from headaches, toothaches, colds, tonsillitis, neuralgia, and all kinds of physical troubles."

"So that you were supplied with every necessity?"

"Man wants but little here below, but in the Arctic he wants that little good, and ours was of the best. And the human and animal personnel of our expedition was up to the standard of the material. We had the picked pick of all the best Eskimos and the strongest dogs in the Arctic. And we had them fresh and fat and full fed. I was in the pink of condition,—never felt more fit,—and I was full of the inspiration of a high hope that I might all alone with my boys solve the great mystery. And so we started for the Pole."

VI.—"TO THE POLE AND BACK AGAIN."

Dr. Cook's narrative in the *New York Herald* was admittedly incomplete and in a few particulars inaccurate. The continued disuse of his native tongue led him once or twice to use a misleading phrase. The following story is partly taken down from his own lips and partly completed by his published letter. It will, I think, form the most complete narrative that has yet appeared:

Dr. Cook sailed from North Sydney, N. S., in July, 1907. Mr. Bradley and he went shooting round North Star Bay, hunted again round Robinson's Bay, and at last reached Etah. From there they went as far north of Smith's Sound as the ice would permit, and finally landed for their winter quarters at Annotok at the end of August. They were in the heart of a great gathering of Eskimos, assembled for the bear hunt with all their dogs. There was any amount of meat, which rendered it unnecessary to draw upon their stores.

The long winter night, which lasts from September till the beginning of March, was employed in getting ready for the expedition. Two hundred and fifty Eskimos,—men and women,—were kept busy collecting furs, preparing skins and making them into garments. They spent most of their time between hunting and tanning. The full dress of the traveler in the Arctic regions, according to Delock, appears to have been varied and peculiar. To begin at the foot, you wear hareskin stockings, over which you draw boots of sealskin. Trousers are of bearskin, while the fur of the blue fox furnishes your coat. A fur cap with flaps over

the ears completes the full dress for winter. In summer sealskin is the only wear.

I asked Dr. Cook if he had not suffered from frostbite. "No," he said, "nor from scurvy, nor from any of the usual illnesses of the explorer. We protected our faces as do the Eskimos, by allowing our hair to grow long and combing it over our face,—tucking it under the flaps of the cap. The beard and mustache are cut short. A long mustache would freeze to the beard, but I often would have given \$1000 to add such little length at the base of my head. But, although the hair was somewhat short, it saved my nose from frostbite."

By Christmas the supplies of clothing were complete, including six pairs of stockings per man. Early in January he began to remove his stores from Annotok to Ellesmere Land. Everything depended upon finding game on the American side of Smith's Sound,—no musk, no Pole. Smith's Sound was difficult to cross, owing to the conditions of the ice, but at last they were safely on Ellesmere Land and ready to start. The procession consisted of Dr. Cook, ten Eskimos, with eleven sledges, and one hundred and three dogs. It started in February, 1908.

It is interesting to note that Commander Peary started from the *Roosevelt* for Cape Columbia on February 22, 1909, and that his party consisted of seven white men, fifty-nine Eskimos, one hundred and forty dogs, and twenty-three sledges, the proportion of men to sledges with Cook being one man, one sledge, and ten dogs per sledge. In Peary's case it was about three men to one sledge and six dogs per sledge. The shrinkage of the procession in each case is remarkable:

COOK.			
	Men.	Dogs.	Sledges.
February 19, 1908.....	11	103	11
March 18, 1908.....	5	57	7
March 21, 1908.....	3	26	2
Pole	3	10	..

PEARY.			
	Men.	Dogs.	Sledges.
February 22, 1909.....	66	140	23
March 1, 1909.....	24	133	19
Sixth stage.....	16	100	12
Tenth stage.....	20	70	10
86° 38'.....	9	60	7

Between February and March 18 the game must have been extraordinarily plentiful on Heiberg Island, for the bag averaged over three musk-oxen, eleven hares a day, while seven bears were thrown in as an extra. This abundance of game enabled them to stand at Land's End fresh and fit, and with unreduced supplies.



DR. COOK DECORATED BY HIS DANISH ADMIRERS.

(Captain Sverdrup at Dr. Cook's left.)

"It was only four months' march, but it enabled me to test the quality of the men and dogs needed for the final dash to the Pole. By the elimination of the less fit, I had twenty-six of the best dogs in the Arctic Circle and two splendid young Eskimos, Etukishuk and Ahwelah, fine strapping lads of twenty or twenty-one years of age, splendid teamsters, and full of all Arctic lore."

"What do you think of the Eskimo as a man?"

"Compared with our best men, he is not on a level, but compared with many of our civilized people he is their superior. The last scientific treatise on the Eskimo will astonish you not a little by the evidence it gives as to the cranial development, whose wits are sharpened by a constant conflict with nature in her sternest aspects. They have their limitations, but their love of berg and their skill to read the face of the sky and the face of the sea are very remarkable. They are also in their way loyal to their employer.

Being nomads of the great white wilderness, they are the freest of the free and the notion that they can be transferred like slaves from hand to hand is rank absurdity. On all Arctic questions an Eskimo is a bet-

ter expert than the best American or European. We white men are all but amateurs compared with the Eskimo, who is the professional."

"And Etukishuk and Ahwelah, where are they now?"

"They are probably in the neighborhood of Annotok, where, rich in the weapons and stores I handed over to them, they will be regarded as Arctic millionaires."

"Do you think they could be depended upon?"

"Yes, I think so. They are not, of course, scientific witnesses, in the modern sense. But they have the science of the Polar Sea at their finger end,—the natural science of the man who is the evolved product of the Arctic region. I would much rather trust a good Eskimo to give a clear, intelligible account of the polar region across which he has traveled more than any ordinary European. I do not know whether they will be found, but their report of my journey will be very good evidence,—Eskimo evidence no doubt. But I only wish I had them here with me to tell you our story in their own way. But they may come."

Now after this diversion by the way I will

return to the narrative of Dr. Cook's dash to the Pole.

When he started for Annotok he was 700 miles from the Pole. When he pushed out into the Polar Sea from Heiberg Island 400 miles lay between him and his goal.

When he passed the 83d parallel he saw a bear track and a seal blow, but these were the only traces of animated life he met on that death scalp of the world toward the summit of which he was now rapidly climbing up by the ladder of latitude.

"We had a rather rough time here and there," said Dr. Cook, "but our men and dogs were in fine condition. Rations were served out regularly, and they were sufficient. The icefield was ever changing and detours had to be made to move the opening leads of water. We were not, however, required to use our canvas boat which we carried with us as part of the equipment of the sledge, but which we had no occasion to use until a much later period in our return journey, when it saved our lives."

"Was it not very monotonous looking across the lifeless wilderness of polar ice?"

"It does not lend itself to picturesque writing. Our life has each day resembled its predecessor. Sometimes the ice was smoother, sometimes it was rougher, but always the routine of the day was the same. There was always the excitement of coming upon a stretch of open water, and the passage down leads between ice floe to ice floe, but except for such adventures and the excitement of ascertaining day by day how much nearer we were to our destination there was little to report. We built our snow-house at each landing-place, lit our stove, melted the snow, made our tea,—our weak intemperate tea,—and gave each man half a pound of pemmican and a biscuit. Then we started on our day's marching, wearing snow-shoes if the snow required it; trudging along until we could no longer drag one foot behind the other. Then in an hour and a half we built another snow house, spread out our bags, and ate another half pound of pemmican and another biscuit. Afterward we fed our dogs with their pound of pemmican, turned into our sleeping-bags, woke up the next day and renewed the same round.

"Always the same food, the same drink, the same regulated thirst, and the same ceaseless toiling over the ice. There was always wind; the ice was never calm. Generally the wind blew South by West. The drift of the ice was East by South. As a rule, the

weather was fairly good. The temperature was about 40° to 45° below zero. When we had reached latitude 44° 47' and longitude 96° 36' through the mist, which for some days had rendered it impossible for us to make accurate determination of our position, far away on our left we saw land, and again we saw land further north. We could not explore it as we had other work in hand; nor could we say how far the land extended to eastward. But we could see through the misty air an eastern coastline, apparently about 1000 feet in height. Whether this was an island or part of a continent we could not say. It lay too far to the west. To have attempted to explore it would have endangered the whole success of our expedition. So leaving it behind we pressed on. The sky was now clear and we were able to take observations from day to day. We were making progress, but slow progress, owing to the irregularity of the fields of old ice and the detours we had to make to avoid obstacles. We did not average more than ten miles a day for the first ten days of April."

At Copenhagen Dr. Cook had little to add to the original narrative of the last 200 miles of his rush to the Pole, which may be quoted as it stands:

We were now about 200 miles from the Pole. The sledgeloads were reduced. One dog after another had got into the stomach of his hungry survivors, until the teams were considerably reduced; but there seemed to remain a sufficient balance of man and brute to push along into the heart of the mystery to which we had set ourselves.

Beyond the 86th parallel the icefields became more extensive and heavier, the crevasses fewer and less troublesome, with little or no crushed ice thrown up as barriers. From the 87th to the 88th parallel much of the surprise was an indication of land ice.

For two days we traveled over ice, which resembled a glacial surface. The usual sea ice lines of demarcation were absent, and there were no hummocked or deep crevasses. There was, however, no perceptible elevation and no positive sign of land or sea.

Observations on the 14th gave latitude 88° 21', longitude 95° 52'. We were now less than 100 miles from the Pole. The pack was here more active, but the temperature remained below 40°, cementing together quickly the new crevasses. Young ice spread the narrow spaces of open water so rapidly that little delay was caused in crossing from one field to another.

The time had now arrived to muster energy for the last series of efforts.

The three men were too tired to build a snow-house at night time, so they brought their silk tent into requisition, the utility of which had been proved at Mount McKinley.

It was warm and light and formed an admirable sleeping-place. The last 100 miles were covered in less than a week.

Dr. Cook, with his trusty Eskimos, was now approaching the Pole. But as every one knows, there is no Pole, no visible outstanding "big nail" to be seen untouched by its discoverers. The geographical Pole is an invisible mathematical point lying at the 90th degree of latitude and is only discernible by a trained scientific man who is accustomed to handle sextants, who understands all about artificial horizons and the calculation of an astronomical problem. The ordinary man turned loose in the Arctic could never find the Pole. Was Dr. Cook such a trained scientific man? I put the question to him directly. Did he claim to be a man familiar with astronomical observations and calculations? His answer was as direct as my question. He was such a man. He did claim to be able to take an astronomical observation with accuracy and to make the necessary calculation with the skill born of much practice. He had taken such astronomical observations in his previous voyages in the Arctic and the Antarctic. He had taken observations in Alaska, and he had practically been navigating commander of Mr. Bradley's yacht on her way north. He was, he asserted, a competent theoretical and practical scientist whose observations might be depended upon.

To him there now enters Dr. Stromgren, professor of astronomy at the University of Copenhagen and director of the Royal Observatory, and by Professor Stromgren Dr. Cook is questioned and cross-questioned and examined as to his knowledge of the theory of astronomy and the practical use of astronomical instruments. Professor Stromgren as the result of his cross-questioning came to the conclusion that Dr. Cook knew how to take observations and that there was no reason to doubt his assertion that he had been to the Pole and that he possessed the requisite scientific knowledge to be able to locate it when he did reach it. And on the morning of April 21 he declares that he did reach the Pole. His written statement is as follows:

On April 20 the first corrected altitude of the sun gave $89^{\circ} 59' 46''$. The Pole, therefore, was in sight. We advanced the 14 seconds, made supplementary observations, and prepared to stop long enough to permit a double round of observations. Etukishuk and Ahwelah were told that we had reached the big nail, and they sought to celebrate it by an outburst of savagery. At last we had pierced the boreal datir



DR. COOK AS PHOTOGRAPHED LAST MONTH AT COPENHAGEN.

and the flag had been raised to the coveted breezes of the North Pole. The day was April 21, 1908. The sun indicated local noon, but time was a negative problem, for here meridians meet. With a step it was possible to go from one part of the globe to the opposite side,—from the hour of midnight to that of midday. The latitude was 90° , the temperature 38° , the barometer $29^{\circ} 83'$. North, east, and west had vanished. It was south in every direction.

I asked him whether he was quite sure that he had located the Pole. How did he know that one particular spot of ice in the vast expanse of the polar ocean was the Pole?

Dr. Cook replied: "If you ask me whether I located the Pole to a square foot I reply I did not. But I located it with sufficient certainty to be scientifically sure that the Pole was within the circumference of a circle not more than a gunshot in diameter. I was two days at the Pole. I took observations both at the center and all round the circle. I am quite certain that when my records are exam-

ined by competent scientific men they will accept my conclusions as correct."

VII.—THE RETURN JOURNEY.

It is unnecessary to follow Dr. Cook's narrative through its concluding stages. The question is not how he came back from the Pole but whether he got there.

He says that it was not till May 24 he was able to take a set of observations, and that they had then reached the 84th parallel and were drifting westward. A desperate struggle began to reach Heiberg Island. After twenty days' forging doggedly as through thick fog, which prevented the taking of observations, Dr. Cook found himself outside a barrier of open water and small ice, which rendered it impossible for them to reach the much-desired Heiberg Island, where food in abundance awaited them. At last by a long detour and many adventures they came out into Jones Sound, where the canvas boat saved their lives.

I asked Dr. Cook if he had brought back from the Arctic the conviction so strongly expressed by Lieutenant Shackleton and all his men as to the certainty of a beneficent protecting Providence, a certainty due to their miraculous escapes from imminent destruction.

"No," said Dr. Cook. "What impressed me most was the enormous importance of little things. If, for instance, we had not had our canvas boat we should all have shared the fate of Ericssen and perished of starvation before an expanse of open water which we could not cross. Again, had we not learned how to snare musk-oxen before our strength had fallen too low to enable us to capture them we should have died. These two things saved us. There are others; but, no, I did not reflect on these things.

"The process is so complete that it seems to wipe out the traces of memory. I only seem able to remember clearly the most recent things. You, for instance, think of the North Pole that seems to me now so far away behind a veil that I remember clearly is the cruel hardship of the final escape from the Arctic. It was then we suffered most,—it is most recent and is most vividly impressed on my memory."

Who knows but that this fierce fire of physical exertion which burns out the cells of the brain and makes a man new from day to day may be responsible for some of the things which have mystified us about Dr. Cook?

VIII.—SUMMING UP.

Dr. Cook has never claimed anything but to have a fair hearing before impartial judges and a clear verdict. Either he has been to the North Pole or he has not. If he has been there he has been there before anybody else. And as a natural consequence everybody else who hoped to carry off the prize is furiously jealous.

It seems to me that Dr. Cook is at least entitled to a suspension of judgment. He emerges half dazed into the fierce blaze of the hurrying, skurrying civilization of the modern world. For fifteen months he has been as if he were a man in a prison, with every chance of being done to death by cold or hunger. He comes out and makes a statement which he promises to prove within a very few weeks. Why not wait for his proofs? There is no such desperate need to hang, draw, and quarter him before he has had a chance of being heard before the tribunal to which he has appealed.

I do not venture to have an opinion on the scientific value of the credence he may have or may not have. But I do possess an elementary enough sense of justice, and I protest against treating a hitherto reputable American citizen as an infamous fakir before we have heard his evidence, seen his papers, checked his calculations, and examined his proofs.

It may be that he will fail to prove his case. If so, we shall bow to the authority of the tribunal to which he has appealed. But if he were declared by the competent authority to have not made good his claim, while I should bow to the decision, I should reserve my own judgment as to Dr. Cook. Mistaken he may be. A fakir, a liar, a deliberate scoundrel who set forth to make a fool of the whole human race, that he is not. He is both too honest and too limited to have conceived so colossal a fraud.



THE STORY OF LEATHER AND ITS USES.

BY LOUIS E. VAN NORMAN.

WHEN primitive man emerged from his cave, put up his first habitation above ground, and sallied forth to hunt in the forest or to catch deep-water fish in the lakes, the most important substance in all the world to him (after his food) was the skin of such animals as he had already killed. This substance, crudely treated for human uses, made the walls of his houses, the coverings for his body, feet, and hands, the boat in which he paddled, the string to his bow, and the thong with which he caught animals alive. It was the first leather. The story of leather and its manifold adaptations to the needs of mankind is one of the most interesting of all the stories of commerce and industry.

MAGNITUDE OF THE LEATHER INDUSTRY.

The diversity of interests based on this animal product and their extent cover such a vast field that the men engaged in them have apparently ceased to regard the subject in any large, general way, the different divisions occupying their attention as separate products in themselves. To the dealer in hides leather means, in general, ox and cow hides for the making of belting or the soles of shoes. The shoe manufacturer is almost certain to speak of shoes and leather as though the industries were radically different. There is no category, except one made for such purposes as an article of this kind, that would include in the mind of the man of commerce such widely diverse products of "industrialized animal skin" as shoes, gloves, and the covers of fine books.

The production and manufacture of leather is a very big business all over the world. In the United States the traffic in raw leather alone ranks third in the commercial enterprises that engage the attention of our people. If we consider, however, in addition to leather as raw material the details of the different articles manufactured from it and base a calculation upon the number of people employed and the variety of operations, the business of manufacturing articles from leather is the largest and most important in the United States. Despite this fact, the in-

quirer after facts concerning leather is amazed to find how little has been written on the subject. This seems the more surprising, since it is of leather that are made so many articles absolutely necessary for the modern American's everyday use and comfort. To name these seems quite superfluous, almost to the point of requiring an apology for so doing. Perhaps for this reason so little is in print about the substance of which are made our shoes and almost all our gloves and with which our hats are lined, that in the very belting of the factories themselves turn the wheels that make these products, the substance that supplies the harness for our horses and makes up such a large proportion of the carriages and wagons these horses pull, as well as of the automobiles that are fast superseding the patient beasts, the substance that makes our good trunks and bags, our pocket wallets, the exquisite covers of our fine books, and the seats and backs of our costliest furniture, as well as supplies the essential portion of the war drums of the world and the drinking receptacles for many millions of Africans and Asiatics.

WHAT LEATHER REALLY IS.

A scientific chemical definition of leather is given as: "The skin of any animal so treated that it remains more or less soft and pliable, does not putrefy, and is not readily changed into glue." Leather, in the popular acceptance of the term, however, is the skin of an animal so treated by industrial processes as to be available for industrial purposes.

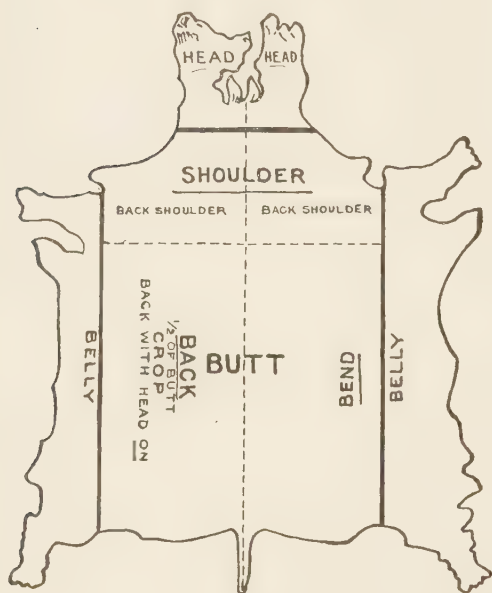
A rapid summing up of the chief points connected with the preparation of leather from the time it leaves the body of the animal to the moment of its complete fitness for use in manufacturing will be useful here. Avoiding technical expressions, such a summing up can be put in this way:

When removed from the animal the skin very soon, if kept moist, becomes putrid. To prevent this and preserve it, it is cleaned and either salted or thoroughly dried.

That part of the animal's skin useful for

leather is the central layer or dermis, which consists of closely matted bundles of fibers. The inner, fatty tissues are useless for leather purposes and must be removed. Their removal and the preparation of the dermis for manufacturing purposes constitute leather-making and tanning.

The general name for animal skins in the



A PACKER'S HIDE.

(Giving the best, most economical result. Showing technical names of parts.)

state in which they come to the tanner is pelts, the kinds of skins classified under the term being hides, kips, and skins. Hides comprise the skins of large and full-grown cattle, also including horse hides, from which are made the thick, heavy leather for shoe soles, machinery, belting, trunks, valises, etc. "Kips" are skins from undersized or young animals of the same species, used for the "uppers" of shoes and for purposes not requiring much stiffness or strength. "Skins" are from smaller animals, such as calves, sheep, goats, dogs, even snakes, rabbits, porpoises, sharks, seals, frogs, alligators, etc. From these lighter leather is obtained, suitable for a great variety of purposes, such as gloves, bookbinding, and the making of parchment.

As they come to the tanner pelts are either "green" (that is, direct from the animal), salted (rubbed with salt on the flesh side), or dried. Only a small proportion of skins

arrive at the tannery "green." Since most of the leather in its raw state must be brought from a distance to the tannery and factory, salted and dried hides form the great bulk.

THE OPERATION OF TANNING.

Before the skins are submitted to the process of tanning, which marks their actual conversion into leather, several operations are necessary. They must first be thoroughly cleaned and softened. Next they must be "unhaired," this process including the removal of the hair on the outside as well as the fatty tissues on the under side of the skin. Lime is the most common material used in this process. The skins are left for a varying length of time in vats or pits known as "limes," in which they are "handled" or turned over and worked about frequently. Hides which are to be used in making sole or other stiff leather are generally "sweated,"—hung in a high temperature, which causes the putrefaction of the fleshy tissues, these being afterward scraped off by an operation known as "beaming." For soft, pliable leather the next process is "bating" or "puering," which consists in soaking the skins for some days in a chemical solution. After this the regular tanning process is begun.

Just how early in the history of the race it was discovered that certain astringent barks and vegetables effected permanent changes in the texture of skins and arrested decay is not known. It is probable that the original process of curing skins was that of simply cleaning and drying. Later, however, history tells us that the use of smoke, sour milk, and various oils was found to improve the texture of the leather. The ancient Egyptians understood tanning. This we know because the process is shown on their tombs. In China specimens of leather have been discovered in connection with other relics that prove them to be over 3000 years old. The Romans tanned with oil, lime, and bark, and the world was apparently satisfied with their knowledge of the subject until the late Middle Ages.

To give them pliability and durability the raw pelts must be tanned. Tanning is a process of rendering soft, pliable, durable, and workable from a manufacturer's standpoint. Coloring and other qualities of appearance are additional processes. The present tanning art, with its complementary operations of tawing, currying, and finishing

leather, is the result of the slow growth of many centuries, and the progress made during the past half-century has been largely the result of study by chemists and practical tanners.

Tanning is done in three principal ways: (1) With tannin of any form, known as vegetable tannage; (2) with metallic salts,—which is a mineral, more properly a chemical, tannage; (3) with oils or fats,—oil tannage. Vegetable tanning agents are many and new ones are being discovered. The principal known ones now are found in the roots, bark, wood, leaves, flowers, or excrescences of sumac, oak, hemlock, chestnut, gambier, mimosa, and a comparatively new South American plant, quebracho. Tanning with metallic salts, or tawing, as it is sometimes called, employs certain aluminum, chromium, and iron compounds. Tanning with oil consists in the application usually of whale or cod liver oils to the fleshy side of the skins, the result being similar,—only in a finer way,—to tanning by the other processes. Vegetable tanning is used for sole leather, upper leathers, and some of the colored leath-

ers, including morocco. Chemical or mineral tannage is, however, employed largely, if not exclusively, for small skins and light leathers.

The tanning process is a long and technical one. As to its exact nature there is a difference of opinion, one theory claiming that the tanning stuff simply coats the fiber and prevents adhesion or stiffening, while the other assumes a true chemical combination between the tanning liquor and the fibers, permitting a complete removal of the latter.

Rapid strides have been made recently in the matter of classifying leather-making as a science rather than an art. The larger tanning establishments conduct extensive laboratories at a considerable cost, where investigation and experiment are constantly going on. As the bark lands recede in the face of advancing cultivation and civilization, ingenuity in finding new tanning agents increases. There are at present from ten to fifteen plants in the country, producing all the way from one to ten cars of bark and wood extract per day. Probably at least 90 per cent. of the vegetable-tanned leather of to-day has been at least partially tanned by extract.



LOADING QUEBRACHO LOGS IN THE HARBOR OF BUENOS AIRES.

(This tree yields tannin almost to one-quarter of its weight, and the logs have been largely exported to Europe and the United States. Recently immense tannin extract works have been erected in Argentina and Paraguay, one of which is owned by a New York firm.)



ARGENTINE BEEVES.

(From which are obtained the excellent sole leather largely imported by American manufacturers.)

KINDS OF LEATHER.

Of the great variety of different kinds of leathers it will be useful to mention and briefly define the following: Sole leather, meaning hides of cows or oxen, either raw or dressed, for shoe manufacture; upper or dressed leather, made from hides which have been split, also from "kips" and large calf skins; morocco leather, made from goat skins which have been tanned by chemical process or with sumac; Russia leather, bark tanned (usually with oak) and colored red with Brazil wood; patent leather, made by coating a tightly stretched split tanned hide with a prepared varnish; and parchment or vellum, made from untanned split skins treated with powdered chalk and rubbed with pumice stone. Vellum is made almost exclusively from calf skin. Artificial leather, which is fast coming into popular use and favor, is made from paper and certain cellulose products, or from certain fibrous materials coated with gelatine and compressed.

ARGENTINA AS A LEATHER PRODUCER.

Grazing lands and the climatic conditions that enable any country to produce a good breed of cattle in abundance naturally give that country statistical prominence in the production not only of meats but as well of leather in its crude state.

There are few if any of the world countries that can compare with Argentina in this respect. On her rolling pampas are fed the millions of sheep and cattle which form the

backbone of her industries,—meat and hides. Upon the 100,000,000 hectares* of land suitable for live-stock sustenance there were raised, in the year 1902, \$45,000,000 worth of animal products. Besides the \$25,000,000 worth of cattle and horse hides in 1906, there were kid, goat, and sheep skins to the number of more than 10,000,000. Most of the hides come from the large *estancias*, or landed estates, and the public meat-freezing establishments, the best being produced in the province of Buenos Aires. During 1908 the number of ox and horse hides shipped from the Argentine Republic aggregated 4,379,087, while sheepskins to the amount of 76,371 bales were sent abroad. Of the hides, the United States was the principal buyer, taking 1,466,143, while France took the bulk, or 55,262 bales, of the sheepskins, the United States following with 7669.

Argentina to some extent produces the tanned hide ready for the manufacturer; she also produces the most remarkable of the new tanning agents, the extract of quebracho, which makes the best leather in the world. The Argentine production of quebracho in 1905 was valued at more than \$2,000,000.

It seems impossible to secure recent comprehensive statistics upon the leather production of the world. The figures published refer almost exclusively to hides and crude rough leather, and to shoes and gloves. As to the other leather manufactured products, figures are not available.

* A hectare is somewhat less than two and one-half acres.

SOURCES OF SUPPLY, 1904.

(In millions of hides.)*

Calf.	
South America.....	58
North America.....	40
Russia.....	30
Asia (all).....	16
Germany.....	16
Austria.....	14
France.....	13
Horse.	
Russia.....	17
United States and Canada.....	13
South America.....	12½
Asia (all).....	3½
France.....	3½
Austria.....	3½
Germany.....	3½
Sheep.	
Australia and New Zealand.....	132
South America.....	121
Russia.....	50
Asia and East Indies	48
United States and Canada.....	40
Africa (all).....	30
England.....	28
Australia.....	12
England.....	10
Africa (all).....	8
Italy.....	5
Spain.....	3
	225
England.....	2
Australia.....	2
Italy.....	1½
Africa (all).....	1
Spain.....	½
	63½
Germany.....	27
France.....	24
Spain.....	20
Austria.....	15
Italy.....	1
Sundries.....	10
	554

* Figures taken from the *Journal of the Society of Arts*.

The finer leathers are supplied mainly from the 100,000,000 of goat hides which annually come from the following centers: Switzerland, Tyrol, Austria, Dalmatia, Bul-

garia, Spain, Italy, Sicily, Central Asia, the Indies, Mexico, South America, Africa, Turkey, and Arabia.

GROWTH OF THE AMERICAN LEATHER INDUSTRY.

The debates in Congress resulting in the removal of the duty on hides, together with the entrance into the leather-producing business of large packing concerns in Chicago, Kansas City, and other Middle Western centers, has drawn attention to the astounding development of the leather business in extent and variety of operations during the past half-century in this country.

The story of the growth of this great business in the United States, while undoubtedly full of human interest, has never been actually written. But as can be read between the lines of trade reports and in the traditions and memories which seem to be the common property of the men who are making our shoes, our gloves, and our pocket-books, it is a thoroughly American story of real American ingenuity and development. Here are a few of the main points in this story as gathered from many sources:



DRYING HIDES OUTSIDE OF A TANNERY, BUENOS AIRES.

FROM SMALL TANNERY TO "LEATHER TRUST."

In its initial stages the leather business of the United States was comprised in the development of the tanning industry, first of New England, then of New York and Pennsylvania, and later of Michigan, Wisconsin, and other Mid-Western States. As early as 1647 Roxbury, now a part of Boston, was noted as a tanning center. Tanning establishments gradually crept westward as the forest was cleared and the oak and hemlock bark used in the tanning process was exhausted. Late in the seventeenth century the shipbuilding industry of Massachusetts had so depleted the forests of oak that the tanning business soon left the State and went to Maine, Canada, and New York and Pennsylvania, where there were adequate supplies of bark. Very soon the small tanneries began to be superseded by larger establishments. These were combined into larger enterprises, until finally the tanning business, closely knit with the production of domestic cattle for hides, became centralized. The control of the entire business finally emerged, in the last decade of the past century, in the hands of two great combinations, which with their subsidiary companies practically do the greater part of the "heavy" leather business of the country. These commercial enterprises are known as the United States Leather Company, established in 1893, and the American Hide & Leather Company, organized in 1906.

"PROTECTION" VS. FREE HIDES.

The discussions over the question of (1) whether or not the new tariff should retain the Dingley duty of 15 per cent. *ad valorem* on imported hides and (2) whether it should add a duty on skins imported for glove manufacture made up one of the most heated phases of the tariff debates, one in which, moreover, there was a very great and widespread popular interest. The arguments on both sides were fully reported in the newspapers and made familiar in all their details to the general public. At many hearings before the House and Senate committees evidence was produced and arguments advanced in favor of the retention of the Dingley rates on hides and advocating a substantial increase in the duty on imported glove leather. The arguments in favor of levying duties on imported raw materials or partially manufactured products are sufficiently familiar in

their general protectionist character and need not be discussed further here. It was in the contentions of the advocates of free leather that the public found some,—to them,—new and significant facts.

It was pointed out by these gentlemen that the cost of leather has been steadily increasing under the Dingley duty. This duty, applying as it does only to "hides" which are used for the soles of the average shoe and other portions of the coarser footwear products (the "cowhide" shoe), bears more heavily upon the poorer class of shoe wearers, whose foot-gear contains a larger proportion of this stiff leather, than upon those whose shoes are made largely of duty-free skins.

The increased price of leather, it was claimed, moreover, had not benefited the American stock-raiser but had helped materially the great combinations of packers. Buying practically all the cattle on the hoof, the large packing concerns,—the Armours, Swifts, Morrisises, and others,—own all the hides. During the past decade these concerns have entered largely into the tanning business and already they control thirty of the largest tanneries in the country. The advocates of free skins claim that these packers, holding in their control the production of a great part of the sole-leather hides of the country and aided by the Dingley duty of 15 per cent. on foreign hides, would soon secure as great a monopoly in the tanning and manufacturing of leather as they already have in the production of beef. And if in tanning and leather production generally, why not eventually in shoes, harness, belting, and other leather industries? Such was the argument of those who advocate the admission free of hides in the crude state.

EXTENT OF OUR IMPORTS OF LEATHER.

Hides and skins are a very important feature of the import trade of the United States, the value of the importations having aggregated a billion dollars in round numbers in the last quarter of a century. Of this billion dollars' worth of hides and skins imported since 1884, goatskins alone have formed nearly \$400,000,000 worth. Seventy-five million dollars represents the aggregate value of the hides and skins imported into this country in the year 1908.

The importations of hides and skins divides itself nearly evenly into three great groups,—“hides of cattle,” “goatskins,” and “all other.” In the eleven months ending with May, 1909, the value of the dutiable

group "hides of cattle" was \$21,060,982; goatskins, \$22,997,675; sheepskins, \$7,331,469, and "all other," \$17,872,322.

The variety of skins of animals imported into the United States for use in manufacturing leather is large. Here are the figures:

VARIETY OF SKINS OF ANIMALS IMPORTED INTO THE UNITED STATES (1908) FOR USE IN MANUFACTURING LEATHER.

	Pounds.	Value.
Goat skins.....	63,000,000	\$25,000,000
Buffalo hides.....	5,500,000	750,000
Horse and ass skins.....	13,000,000	2,225,000
Sheepskins.....	47,000,000	9,500,000
Kangaroo skins.....	500,000	350,000

India is the principal source of the goatskins and buffalo hides imported into the United States. Canada, Argentina, and Mexico supply most of the cattle hides imported; and the United Kingdom, Russia, Germany, and France send the bulk of the miscellaneous assortment. Of the 63,000,000 pounds of goatskins imported in the fiscal year 1908 over one-third came from India and the rest from China, Mexico, Brazil, Aden (Arabia), France, Great Britain, Russia in Europe, Argentina, and British South Africa. To analyze the figures a little further:

CATTLE HIDES IMPORTED (POUNDS) DURING FISCAL YEAR 1908 (TOTAL 98,000,000).

Canada	25,500,000	Colombia ...	4,000,000
Argentina....	22,000,000	Uruguay	4,000,000
Mexico	11,000,000	Venezuela ..	3,000,000
France	7,000,000	All others....	15,000,000
India (chiefly buffalo) ..	6,500,000		

Hides and skins from abroad make up approximately one-third of the value of material of this character used in the manufacture of leather in the United States. The census of 1905 shows the value of leather, tanned, curried, and finished, in 1904, to be \$252,000,000. The value of the hides and skins used by the leather producing industry of the country in that year reported at \$145,000,000, or, in detail:

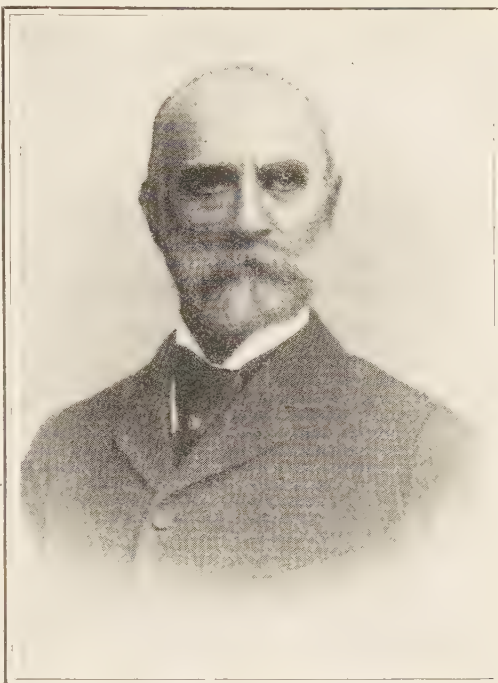
VALUE OF HIDES AND SKINS USED BY LEATHER PRODUCING INDUSTRY, 1904.

Goatskins	\$27,000,000
Sheepskins	10,500,000
Calf and kid skins.....	15,750,000
Hides (chiefly cattle).....	89,000,000

The exportation of leather and its manufactures from the United States has grown from \$7,000,000 value in 1880 to \$12,500,000 in 1890, \$27,000,000 in 1900, and \$40,500,000 in 1908. Of boots and shoes we have become meantime a large exporter. These figures are interesting.

BOOT AND SHOE EXPORTS OF THE UNITED STATES AND GREAT BRITAIN COMPARED (1908).

	Value.	Number of pairs.	Average value per pair.
United States....	\$10,031,227	5,967,793	\$1.68
Great Britain....	10,139,689	9,146,100	1.11



COL. GORDON M'KAY.

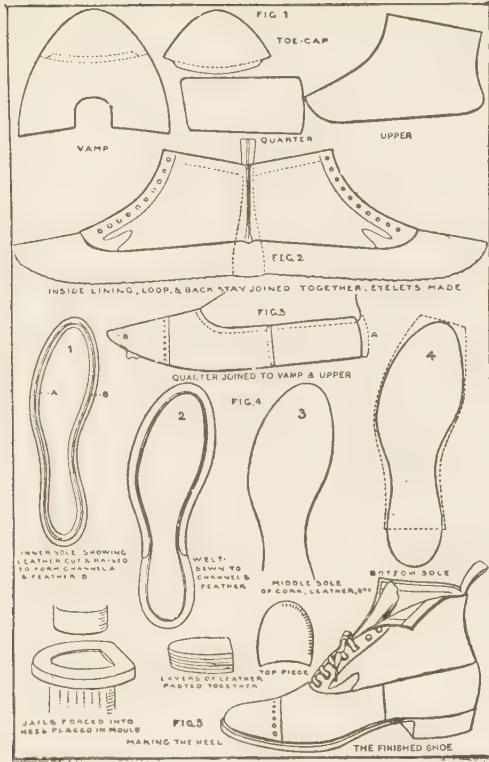
(Exploiter of the shoe-stitching machine.)

THE STORY OF AMERICAN SHOES.

The story of leather in the United States is largely a history of invention and improvement in shoe-making machinery.

Starting with the stitching-machine of Colonel McKay (who was, it should be said, more of an exploiter than an inventor), in rapid succession there were put on the market machines for welting, pegging,—indeed, more than a score for performing all those complicated operations by which the modern ready-made shoe is built up. Ever since the days of McKay there has prevailed a peculiar system among shoe machine manufacturers of renting but never selling their apparatus. To this day the shoemaker does not buy the machines to do his work; he rents them for a term of years, paying a royalty on each shoe made,—about three cents on a pair of woman's shoes and from four to five cents on a pair of man's. When the United Shoe Machinery Company was formed by a combination in 1899 this method was perpetuated.

Although New England has the honor of being the first seat of the shoe industry, and although it may still be said to hold its primacy in the number of shoes manufactured, New York and Pennsylvania early in



From Nelson's Encyclopedia.

THE ANALYTICAL DIAGRAM OF A SHOE.

their history acquired a pre-eminence in the tanning end of the leather business and also in the purely mercantile phases. It was, moreover, as is pointed out in another place, from central New York that the American glove business started. The leather merchants of New York have always stood high in the community, and for many years in their close association in that district in New York City which was and still is familiarly known as "the Swamp" there was perhaps a touch of clannishness which is more characteristic of the trade guilds of the Old World than of American business life.

THE VAST BUSINESS OF SHOE-MAKING.

History does not record a time when a goodly proportion of mankind did not wear some sort of foot covering. Even in the most ancient times, when the ordinary individual went barefoot, "folks of quality" wore foot covering of some sort, whether for comfort or ornament. Even in the earliest times also there was an infinite variety between the rude sandal, or single piece of leather fixed to the bottom of the foot by means of a strap,

and the elaborate shoe embroidered with jewels.

The manufacture of shoes in the United States dates back to early Colonial times. Indeed, one of the passengers on the *Mayflower*, on her second voyage, was a cordwainer, one Thomas Beard, sent by the London Company, who brought with him a supply of hides. The early shoe-makers worked for their neighbors or traveled to the widely scattered homes of the early settlers to make and repair shoes.

Until the middle of the seventeenth century there were no changes of any consequence in the shoe-making industry, but after that date a period of slow transition began. Then it was that some enterprising shoe-makers commenced to employ others, division of labor was instituted, and the quality of the shoes very much improved. Up to the middle of the nineteenth century, however, the manufacture of shoes in the United States was strictly a process of hand work. In the year 1811 the wooden shoe peg was invented. The next important step was in 1845, when the first successful application of machinery was made to shoe manufacture. This was a rolling-machine for softening leather, the introduction of which was almost immediately followed by a wax-thread sewing machine and some other mechanical appliances. Fifteen years later the McKay sewing machine revolutionized the shoe business. By means of this machine the rapid production of sewn shoes became possible at a moderate price. Several years later, by the improved Goodyear process, it became possible to sew the "welt" directly, in one operation, to both of the soles. With this invention modern shoe-making practically begins.

Of the multitude of details in the manufacture of a good quality pair of shoes to-day in a high-grade American factory it is unnecessary to speak here. There is no article of clothing in which so much skill, so much varied detail of manufacture, as well as in variety of material used, as in a pair of shoes. It may be sufficient to say that in such a factory there are from 100 to 120 divisions of labor, most of the work being done by machinery. In fact, the great factor in the making of a modern shoe is the machinery, which, thanks to the American inventive spirit, has been improved until to-day there is no disputing the fact that the American-made shoe is the best in the world both as regards style and durability. The output of a modern American factory varies from

3000 to 20,000 pairs a day, depending on the quality of the product, whereas the maximum of the small hand shop under the old system was not more than three or four pairs every twenty-four hours.

Three facts make a deep impression upon the lay visitor to a modern shoe factory: First, the number and efficiency of the machines; second, the economy of production, there being virtually no such thing as waste, and, third, the variety of material. To the ordinary man who thinks that in a general way shoes are made of cowhide and goatskin it comes as a surprise to learn that half a dozen different animals are laid under tribute to furnish material for his foot covering. Cow or ox hide, of course, is almost invariably the source of sole leather, but uppers, using that term not in the technical sense but to denote the upper portions of shoes generally, are made from calfskin, grown on the American Western plains, the pampas of Argentina, or the wilds of Australia; goat and kid skin, from the backs of animals reared in France, Italy, Corsica, Russia, Spain, North Africa, and various parts of Asia; coltskin, from Russian Siberian ponies; and "kangs," the skins of kangaroos from Australia and New Zealand.

Lynn, Mass., was the cradle of the Ameri-



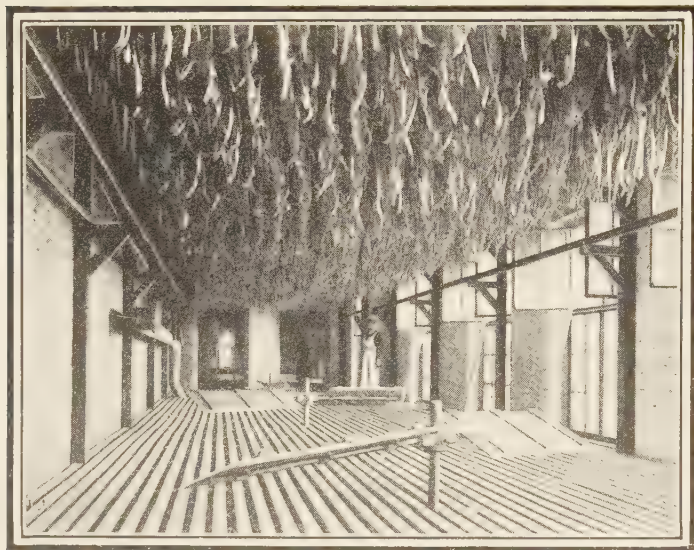
DANIEL B. FAYERWEATHER.
(Pioneer New York leather merchant and philanthropist.)

can shoe industry. By 1795 the evolution of the factory system had reached a stage where in Lynn alone there were 200 master-workmen employing 600 journeymen and turning out more than 300,000 pairs of shoes per year. The entire shoe was then made under one roof and often from leather tanned on the premises. It may be said now that Boston itself is the center of the business, with Brockton, Lynn, and Haverhill other important Massachusetts centers. Rochester, Milwaukee, Chicago, St. Louis, and Cincinnati have also during the past half-decade become important shoe-producing cities. Uncle Sam, indeed, is fast becoming the shoe-maker of the world. In 1878 the number of pairs of boots and shoes exported from these United States was 351,000; in 1908, 6,552,000. In the thirty years between the dates mentioned the export value of the American shoe business aggregated more than \$88,000,000. More than 250,000,000 pairs of shoes are made annually in this country. This represented in the year 1905 an invested capital of \$122,500,000 and an annual wage total of \$70,000,000. Of the 150,000 workers, male and female, employed in the business the New England States, according to the official figures compiled by the Government in the year 1905, contained 79,000, and of this number more than 62,000 worked in Massachusetts factories.



JACKSON SCHULTZ.

(One of the pioneer leather merchants of the New York "Swamp," perfecter of one of the important tanning processes, and known in his day as one of New York's most public-spirited citizens.)



THE SKIN-DRYING ROOM IN A GERMAN GLOVE FACTORY.
(Note the fans working from the floor for the circulation of air.)

GLOVES HERE AND ABROAD.

The most recent investigations go far toward convincing the student that mankind used gloves in some form even before he used shoes. The prehistoric cave-dwellers undoubtedly had some hand covering, and since their day the glove has continued to be a highly important object of man's solicitude as a part of his raiment and has figured in many poetical and ceremonial ways in human intercourse. A very old proverb has it, "For a glove to be good three nations must contribute to it: Spain to dress the leather, France to cut it, and England to sew it."

Up to the end of the Middle Ages the glove was a laboriously made thing, used rather less for protection from cold and injury than for ceremonial purposes among the higher orders,—royalty, the military, and the clergy. The Germans, according to historians, were probably the first people to adopt the custom of wearing gloves to any considerable popular extent, although their manufacture was introduced into Germany by French refugees. Very early in the history of the glove industry there arose in England and on the Continent the society of handicraftsmen known as "Glovers." This society promoted the glove trade and made improvements in the material and manufacture of the glove itself.

A little after the middle of the eighteenth century Sir William Johnson, agent of the

British King George with the North American Indians, brought over from Scotland a large number of settlers, to whom he granted land in the eastern part of what is now Fulton County, New York. Many of these settlers, who had been glove-makers in Scotland, brought with them glove patterns and the proper tools for the making of gloves. Their labors in the New World were for many years devoted to supplying the local neighborhood with protection for their hands while engaged in the pioneer work of the time. It was not until 1809 that gloves were manufactured for

the general market. The first supply, so tradition has it, to be disposed of outside the local region was taken by a merchant of Johnstown, N. Y., on a horseback tour to Albany. He found that they sold well and began the glove manufacturing business on a good scale by hiring the farmers' wives and daughters to come to his factory to get gloves or mittens, which were then sent out to their homes to be sewed. In 1825 Gloversville had become known for the manufacturing of gloves.

The early processes of glove-making were, of course, very simple. The pattern was cut from pasteboard or shingle, and this, placed on the skin, enabled the worker to cut his material to the proper shape. The cutting was usually done by men and the subsequent sewing or stitching by women. For nearly a generation the glove manufacturer did not have his wares sewn in his factory, but gave them out to the country people, who came from miles around and took unsewn gloves home. Soon dies of primitive construction and wooden mauls were introduced; and these, with improvements, are in service even to-day. The first real machine to be used in the manufacture of gloves, a large, crude, clumsy sort of sewing-machine, was introduced in 1852. It was soon perfected, however, until four years later the entire glove was made by machinery. The first decided stimulus to glove-making in the United States came during the Civil War, when

large quantities of gauntlets were required for the military service. It was in 1875 that steam power was applied to running sewing-machines for gloves.

Deer, sheep, and goat skins have always maintained the lead as materials for glove-making, but the variety is large, including buckskin, kid, antelope, calf, colt, chamois, reindeer, and dog skin. The imported skins came chiefly from Morocco, which exported more than 150,000 sheep and goat skins in 1908, and the domestic ones through the cities of Chicago and St. Louis. Most imported skins are in a raw state and are always dressed in American tanneries. Deer skins are largely supplied by Mexico, Central and South America, and many parts of the United States. The variety of Para deer skin, known as "Jacks," comes from the region at the mouth of the Amazon, while the skin of the Mocha sheep, a native of Arabia, Abyssinia, and other regions at the headwaters of the Nile, is much used in the manufacture of stylish American gloves. Glove leathers are very largely alum tanned. After the actual tanning and drying they are submerged in a curious bath, which is a mixture of eggs, salt, and water, this operation rendering the leather soft and pliable. The color is then applied with a brush.

Glove-making has become one of the important branches of American manufacturing industry. According to the census of 1900 there were 381 large glove-making establishments throughout the country, of which 243 were in New York State. The total capital of these was something over \$9,000,000, and the total value of the product at that time close to \$17,000,000, of which more than \$10,500,000 must be credited to New York. According to the same report there were, in the year 1900, 2,895,600 dozen pairs of gloves produced in the United States, of which 1,721,800 were made in New York.

The glove industry in France has always been prosperous and at the present day the republic is among the foremost of nations in the production of gloves, actually the foremost in the production of the higher grades, especially for women. French success in this respect has resulted largely from the persistent and intelligent efforts of French manufacturers to secure the highest excellence in material and workmanship. Grenoble, a town of some 70,000 inhabitants, is the center of the French glove district and contains some 615 glove-making establishments, both

public and private, employing more than 10,000 workers, of whom close to 7000 were women and girls. The French leather industry, once supreme in the production of fine shoes as well as fine gloves, is at the present time suffering from a crisis, the causes of which are being studied by the Minister of Labor, and responsibility for which is attributed in no small degree to foreign competition, particularly from American and German manufacturers.

To the general public, which may imagine that the leather industry is not subject to the same sort of fluctuations that characterize other businesses catering to great public needs, it will come as a surprise to know that climatic, political, social, and economic causes, and even the whims of fashion, often seriously affect the volume of production of leather as well as tend to shift the centers of such production and manufacture. It is claimed that the shipment of New Zealand refrigerated beef and mutton has already attained such proportions that the Argentine beef products have been displaced somewhat in the British Islands. This lessening of shipment of Argentine cattle products to England has withdrawn to a certain extent Argentine hides from Britain, turning the attention of the producers of this South American country in larger degree to the United States. This has resulted in a larger importation of Argentine hides by this country and a corresponding shift in the figures of import and home production. Some of the increased hide production of Ohio and other of the Middle and Mississippi States can be traced, at least so leather men claim, to the fact that cattle on the far Western ranches so frequently injure themselves by contact with the barbed-wire fences, this rendering their hides of less commercial value for fine shoe-making. A freak of fashion which came in some few years ago decreed that women should wear elbow-long kid gloves and this effected an almost revolutionary change, at least temporarily, in the glove-leather producing business all over the world. The supply was nowhere equal to the demand and the phenomenal increase at that time in the production of skins used for glove-making was entirely unexpected. It may not be romantic, but it is nevertheless true that much of the love the Arab is said to have for his matchless steed is actuated by commercial motives. When the Arab horse of the desert has reached the best year of his age, say six, he is ruthlessly slaughtered and his hide sold to the tanner.



DEFENDING BOSTON. THE BLUE ARMY CHARGING ACROSS A PASTURE AGAINST THE INVADING REDS.

TAKING BOSTON IN THE WAR GAME.

An Interview with Major-General Leonard Wood, U. S. A.

TO train soldiers for war by giving them practice under conditions as nearly identical as possible with those that would prevail in case of actual conflict,—this is the object of the mimic war game, or, as it is known in Europe, the maneuver. The practice war game is more than a generation old on the European continent. It is of more recent development in this country. In fact, it is as yet a novelty to our people. Of course, in the United States the war game is not intended to create a desire for military glory, but to train the militia of the different States to co-operate with the regular army in the defense of our coasts and frontiers.

The great importance of practicing the art of war under conditions simulating those of the shock of battle is not generally realized by the American people. The latest maneuvers, those which took place in the middle of August, have done a good deal toward making us all understand the vital significance of such practice. This result has been due not only to the success of the Massachusetts maneuvers and the splendid conduct of the officers and men, but to the far-sighted execu-

utive abilities and prophetic imagination of Major-General Leonard Wood, who, on June 2, became the ranking officer of the United States Army.

Leonard Wood, said ex-President Roosevelt, "is easily the ablest soldier the nation has produced since the Civil War." "I very much regret," Lord Cromer, the British consul in Egypt, is reported to have observed, "that I cannot have such an administrator as Wood to succeed me in Egypt." No other army in the world, it has been pointed out, ever made a doctor into the highest of its generals, but Leonard Wood's courage, devotion, executive ability, and perseverance have fully entitled him to the position he now fills. Despite his enemies in and out of the military service, it can be confidently asserted that no man could do what Wood has done without being a very big man remarkably equipped and finely devoted to his duty. This is the man who, in his recently appointed capacity of commander of the Department of the East, has already made the service feel the touch of his thorough, untiring mind, and the country begin to realize what can be

done by a scientific soldier with a creative imagination.

In his office at Governor's Island, in New York harbor, one morning last month General Wood sat listening to reports from his colonels, quartermasters, and other executive officials and passing rapidly upon a diverse multitude of matters presented in reports to him, varying from the advisability of a practice march by regular troops in northern New York and the settlement of some dispute in Porto Rico to the application for the establishment of a laundry at one of the forts within his district and the claim for damages of an Italian peanut vender whose stock, he claimed, had been appropriated by some soldiers during the August maneuvers without sufficient payment.

"You can see," said General Wood, rising to greet the writer, "that our boys, both regulars and volunteers, behaved very well, since this man's claim is the only one made for damages during the campaign against Boston. In fact, the entire cost for damages and rentals to date is less than \$2,000, and will not exceed \$6,000, most of it being for rentals. The most noteworthy feature of the entire event," continued General Wood, "was the conduct of the men. You cannot emphasize too strongly the perfectly splendid conduct of regulars and volunteers alike."

Discussing the "war game" in detail, the General reminded his hearer that this, the largest and most successful war game ever played in the United States, resulted, on August 19, in the theoretical victory of the invading army and the demonstration that, under existing conditions, the city of Boston might easily be captured should we lose our command of the sea. These maneuvers had for their object the experiment whether or not an army corps of an invading force controlling the sea could live off the country, or at least carry its supplies with it, and conduct a campaign without

any fixed base for a time sufficient to strike effectively at one of our great cities. The general theoretical situation as set forth in the plans of the department was as follows:

On August 10, immediately following an unexpected severance of diplomatic relations, war was declared between a strong European power (RED), and the United States (BLUE). On August 11 the (BLUE) North Atlantic Battleship Fleet, after a severe engagement with a superior (RED) fleet off the MAINE coast, was defeated and scattered; the remnants of the crippled (BLUE) fleet took refuge in Portland and Portsmouth harbors, and are now blockaded by the victorious (RED) fleet. Command of the North Atlantic Ocean has been secured by the RED.

DISPOSITION OF THE TROOPS.

The main Red army was ordered to advance to the capture of Boston under escort of a portion of the victorious Red fleet coming down from the Maine coast. This consisted of a division of 7000 men, made up of the First and Second Connecticut, two District of Columbia, and the Seventh, Fourteenth, and Twenty-second New York regi-



From Collier's Weekly.

THE CAMPAIGN AGAINST BOSTON.

(On this diagram, the Red, or invading forces, are indicated by the dark rectangles, and the Blues, or defenders, by the light. The position of the two armies on each successive day is demonstrated by the number printed next to each division.)



A CHARGE OF THE RED CAVALRY.

ments, the Essex Cavalry Troop of New Jersey, Squadron A New York Cavalry, and one squadron of the Tenth U. S. regular cavalry, with several batteries of artillery. These, known as the first division first corps Red army, were under the command of General Tasker H. Bliss. The defenders, making up the Blue army, consisted of 6,000 Massachusetts volunteer militia under command of General William A. Pew. This force was officially known as the first division first corps Blue army.

MAKING THE PLAY REALISTIC.

The men carried with them everything they would have carried in time of actual war. Their accouterments and general equipment and the commissariat department were exactly similar to what would have been used in active service. The regular army ration was used and the cooking done in part by the men, assisted by a number of army cooks as instructors. The theoretical condition of a successful invasion was carried to the farthest point possible. After a given date no steam or electric railroads were permitted to be used for transportation, and after the same date all telegraph and telephone lines were considered destroyed, and "both belligerents restricted to the use of those means of communication which actually accompany the respective forces at the opening of the campaign, or which may be secured subsequently to replace defective or broken paraphernalia." The only essential differences between this particular war game as played and actual warfare were, of course, the use of blank cartridges instead of "ball," the halting of charges and engagements just before the point of actual physical conflict of the men, and the prohibition of the use of "spies, civilians, or members of the contending forces *not in uniform* beyond the lines." All the paraphernalia of war, including commissary department, hospital corps, quarter-

master, signal and ordnance, were in use. Newspaper correspondents received the same consideration as in a campaign.

UMPIRING A WAR GAME.

In these operations the decisions of the umpires accompanying both forces took the place of the destructive results of shot, shell, cold steel, and disease in actual warfare. To umpire a war game requires an intimate knowledge of the art of war, a keen power of rapid discrimination, and a sense of proportion and fairness which are not common even among military men, but are excellent tests of the qualities that go to make a good officer. The umpires make the play as realistic as possible. There is always one with each organization of each arm of the service represented in the maneuvers who considers not only what would be under conditions of actual war the inevitable result of gunfire, the massing of superior numbers of troops, and the defensive power of intrenchment and earthworks, but also the handling of the troops by their officers. For example, if a body of troops charges a certain strong position in the face of a "withering" fire the attacking force is pronounced repulsed when it reaches a point at which under conditions of actual war it would have been "decimated" by the fire from the enemy's intrenchments. The proportion of loss which would have characterized real conflict is made to apply to the theoretical attack and so many troops are declared "dead" and "wounded," and out of action for the balance of the operations. Troops are "captured" in mimic warfare when they are hopelessly surrounded by a superior force. Bridges are blown up when a sufficient number of troops are present to accomplish the destruction and when they use and properly place a sufficient number of imitation explosives such as are required by the rules. Moreover, a bridge which has thus been properly "destroyed,"

and so labeled by a retreating army, cannot be considered repaired unless a sufficient number of properly equipped engineers or other troops can be brought to the point and until a sufficient time has elapsed after their arrival to enable the bridge to be actually repaired in case of warfare.

NEITHER ARMY DEFEATED.

Under most unfavorable weather conditions, General Bliss' Red army of 7000 men advanced upon "the Hub," in spite of the desperate opposition of the Blue army, and for three or four days the country was regaled with all the bloodless details realistically recorded by an enthusiastic daily press. The Red army, under cover of its naval escort, effected a landing at New Bedford and rapidly advanced upon Boston from the land side, driving back the Blue outposts. There was a battle at Eddyville, which raged for several hours in the midst of a severe storm of wind and rain, in the course of which, so the umpires say, the Reds lost 600 men killed and the Blues 350, to say nothing of large numbers of captives. Finally, in a two hours' battle at Hanover Four Corners the defenses of Beacon Hill were taken and Major-General Wood, the chief umpire, declared peace between the contending forces, pronouncing that "neither side was wholly defeated in the war game."

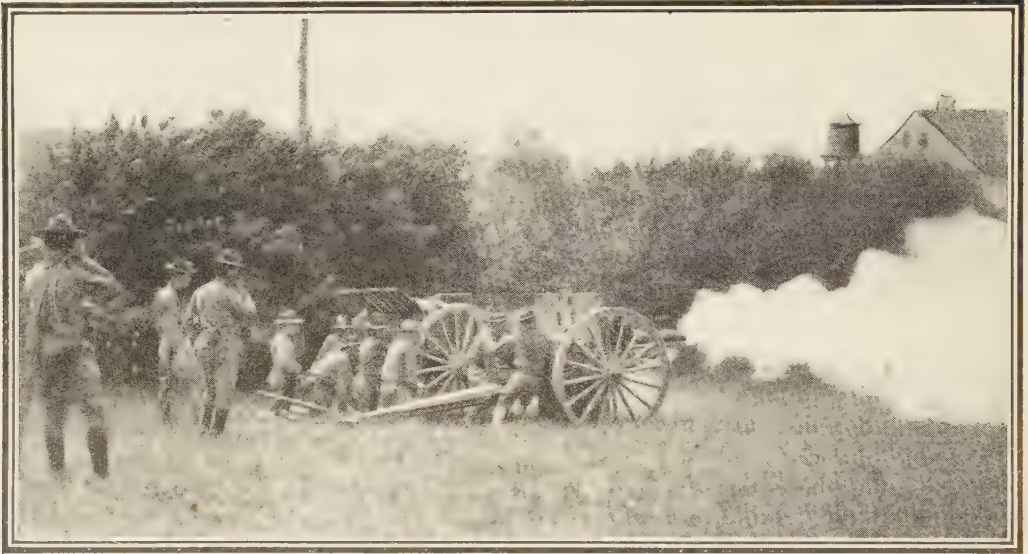
General Wood expressed himself as delighted with the results of the Massachusetts

war game from every standpoint. He emphasized particularly the fact that, though for nearly a week 14,000 men had been "fighting" over a country covering 2000 square miles, there was only one death and less than 100 cases of illness reported, none of these being serious. That there were only six cases of stomach trouble speaks highly for the provisioning arrangements. The entire cost of the maneuvers was less than \$100,000 to the national Government and about the same amount to the States concerned. In this connection it should be pointed out that no additional appropriation was made by the national Government for these maneuvers, the cost being deferred out of an appropriation already made for the general militia. The States which sent troops would have spent in the aggregate an equal amount for their annual summer encampments.

The maneuvers, General Wood believes, have impressed Boston and the rest of the country that the Massachusetts capital could be taken from the rear. Its sea-coast defenses, efficient as they are, would be able to defy only an attack from the sea. What is true of Boston is true of other of our seaport cities. A quick-moving enemy could undoubtedly puncture our line of defense at almost any point on our coasts. The maneuvers have served to indicate the great necessity of coördinate action between the national guard and the regular army for effective defense. The war game played yearly at other



BOSTON'S DEFENDERS (BLUES) GUARDING A RAILROAD LINE.



A BATTERY OF RED (INVADING) ARTILLERY FIRING AT BLUES (DEFENDERS) WHO ARE ADVANCING THROUGH A CORN FIELD.

points of our coast and the immediate hinter-land, General Wood believes, will not only teach us to know our own country in its topographical configuration, but will result in more practical knowledge of warfare to the regulars and militiamen alike than could be secured by months or even years of study of books or armory practice.



THE VAN OF THE INVADING REDS ON MARCH.

HARRIMAN THE ABSOLUTE.

BY ROBERT S. LANIER.

ON September 9 the men who work at big practical things were centering their thoughts a dozen miles west of the Hudson River, on the green hill above Arden.

There lay a pale little man in a palace of rock and marble that mocked him by its newness, for he was fighting the end. In life no obstacle had ever blocked him long from his goal. But this was death.

And because the little man was president of the Union Pacific Railroad, and thereby the master of motion over 25,000 miles of main track, whose voice was heeded over 50,000 more,—the admiral of great steamers along 54,000 miles of seapath, the trustee of stocks and bonds priced at \$400,000,000 and of \$150,000,000 cash, levers to swing the money markets of the nation as well,—therefore men of millions in every land, hearing that the fighter's hold might loosen soon, were bracing themselves against the shock. In New York and in London, in Paris and Berlin, the markets fell and rose again with the rumors. What would happen when the world lost the brain that influenced four billions of capital, earning three-quarters of a billion in a year?

Yet no mere price mark will do for this man's record. At four o'clock the news came: "Harriman is dead." And those will never forget who bore the message to one leader after another of friendly or hostile forces,—men like Schiff, Hill, Stillman, Ripley, Yoakum,—how the veteran faces, hard or secret, changed for just a little. They stood or sat in the hush of awe, these strong men, though they were well prepared, though stocks had been sold and pools formed to guard against the crash.

What had passed they knew was more than a man of ambitions, faults, pluck, money,—was something witnessed only two or three times in each lifetime. Within human limits it was a natural force,—motion itself.

This is why the news did not seem possible, for just a moment, to these former friends and foes of the short, stooping man, whose head was out of all proportion, like the head of a giant, who swayed it from

side to side as his crackling voice stung them to action, whose black eyes, deep behind great spectacles, saw quicker, longer, wider than others could see.

In his visions, Harriman time and again stood alone. To him the new West was as clear as print: "Populism is dead; dollar wheat is paying off mortgages and piling up bank accounts." But ten years ago no one else saw it. It was suicidal, cried the world of finance, to pile fortune after fortune on the tottering Union Pacific. Harriman's own board of directors voted against him to a man. He answered by casting some personal millions on the pile and forcing his will upon them, until the "U. P." and "S. P." had been enriched by \$375,000,000. And because of his absolute vision the Union Pacific and Southern Pacific last year earned \$220,000,000 in all, instead of the \$65,000,000 of 1898; and stockholders got \$40,000,000 instead of \$3,000,000.

It was suicidal again, the experts agreed, to run a railroad from a point 400 miles east of the nearest rails. Yet it was from Chicago that J. C. Stubbs directed the traffic and Julius Kruttschnitt the maintenance and operation of their 20,000 miles so well that their expense ratios crept down to 55 per cent. of earnings,—beating the record of J. J. Hill himself. And the Harriman lines have the best equipment in America, rolling over the best roadbeds.

Finally, it was vicious, indefensible, according to much of the press of America, England, Germany, and France, when in May, 1906, Harriman declared a dividend of 10 per cent. on Union Pacific (which had been paying 6 per cent.) and 5 per cent. on Southern Pacific (which had been paying nothing). Conservative editors warned against such "breaches of trust," such "stock market tactics."

Yet to-day the Union Pacific is earning twice as much as it needs to pay that 10 per cent. and the Southern Pacific is earning 9 or 10, and therefore well able to pay 6.

A RAILROAD "ENDLESS CHAIN."

But the deed that marked Harriman most apart and that raised the deepest protests

came in 1906. As a railroad president he began heavy purchases of stocks in roads not connected with his own,—endless chain finance, a private man gathering up railroads, servants of the public. If with the earnings or stock-market profits of one railroad you could buy profits and votes of another, and on *ad lib*, where would be the end? Harriman already has the first say over roads from Savannah to San Francisco. Stop him! And the United States Government in 1908 sued the Union Pacific for creating a monopoly in defiance of the Sherman law.

The courts may decide against Harriman's holding company in so far as it consists of "parallel and competing lines." As for the cries that he used it to forward his private speculations, I can report no evidence to refute the charge,—or to support it either.

Coming down to known facts: The critics in 1906 widely recalled that it was through just this sort of mad ambition, the borrowing of enormous sums on a railroad company's notes to purchase the stocks of other roads, that McLeod had wrecked the Reading in 1893.

"But I did not wreck the Union Pacific," replied Mr. Harriman, by action. He voted his stocks of the big trunk lines running east from the Atlantic so that their Pacific coast-bound traffic fell in lion's share to the Union Pacific. And his earnings kept on growing.

WHAT HARRIMAN WAS.

To catalogue the things Mr. Harriman was usually produces a sort of railroad-guide index. He was really three different things,—the absolute, though sometimes unofficial, manager of certain miles of railroads and steamboat lines; second, a looming influence in certain other miles of road, in which stock was held by the Union Pacific or by Mr. Harriman personally, or, which like the Erie and Wabash, had borrowed money from him in time of need; and, third, he was a money power. Nobody else had the handling of anything like \$474,664,240 stock and bonds, together with \$150,000,000 cash. And thus he was a director of the National City Bank, the largest on the continent, and in other financial institutions.

MILES OF MAIN LINE CONTROLLED.

(Not Including Second Tracks and Sidings.)

Union Pacific, Oregon & California, Oregon R. R. & Navigation Company, Oregon Short Line, etc.....	6,057
Southern Pacific, Central Pacific, Louis-	

iana Western, Louisiana Railroad, Texas & New Orleans, etc.....	9,956
Illinois Central, Yazoo & M. V.....	5,879
Georgia Central.....	1,914
St. Joseph & Grand Island.....	319
San Pedro, Salt Lake & Los Angeles....	1,136

24,261

MILES OF MAIN LINE INFLUENCED.

Baltimore & Ohio.....	4,448
New York Central.....	12,404
Atchison	10,608
St. Paul, C., M. & Puget Sound.....	8,700
Wheeling & Lake Erie.....	498
Wabash	2,514
Erie, N. Y., S. & W.....	2,574
Delaware & Hudson.....	1,937
North Western.....	7,632

50,415

Then there were the steamship companies: Pacific Mail, Portland & Asiatic, "Morgan Line," Southern Pacific, comprising 54,000 miles by sea.

MONEY INFLUENCED.

	Capital, Surplus and Deposits.
National City Bank.....	\$268,000,000
Guaranty Trust Company.....	98,000,000
Wells Fargo Bank, S. F.....	31,000,000

That is only part of the story. His bankers were one of the three largest firms in America,—Kuhn, Loeb & Co.,—with powerful connections in London and in Germany. Besides these and other active financiers,—H. C. Frick, with a fortune from steel and coke; Stillman, Rockefeller, and other great figures of Standard Oil,—he was backed by many more men of millions whose names are rarely heard, who have retired from the struggle, but like to make their money earn more than 4 per cent. and trusted it to Mr. Harriman. Great insurance companies, like the Mutual and Equitable, bought his bonds and stocks by the scores of millions of dollars.

HOW RAILROADS ARE CONTROLLED.

By no means did Harriman and his friends own anything like a majority of the stocks of all those railroads. That would have cost more than two billion dollars!

In the first place, nearly one-half the American railroad stocks actually "outstanding" have been bought back from the public by the railroads themselves. Then there are hundreds and thousands of investors who never vote. Every "old-line" road has thousands of such stockholders, in England and Canada and Holland and Germany and Switzerland, holding the stock for dividends merely. Then the big institutions like trust



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EDWARD HENRY HARRIMAN.

(The one man in history who combined railroad science with financial art to the limit—who could drive engines at the least decimal of a cent per ton per mile, and drive the richest group in the world to back him implicitly.)

and life insurance companies have millions of shares in railroads locked up permanently. Thus when Harriman "bought into" New York Central it meant by no means that he and the Union Pacific could show down more than half of the \$178,042,000.



THE SOLID BLACK LINES INDICATE THE 25,000 MILES OF RAILROAD UNDER MR. HARRIMAN'S CONTROL; THE BROKEN LINES, THE 50,000 MILES WHICH HE INFLUENCED CONSIDERABLY AND INCREASINGLY.

(The dates indicate the years in which he obtained entrance into the chief great gateways of through traffic.)

stock. It is not known that they owned one-tenth as much.

Much stir has arisen over the discovery of such situations, because so few people yet appreciate *why* Harriman swung into one board room after another "on a shoestring." If the directors of the New York Central, for example, had combined against him his counsels could have been swept aside in a moment. He could figure on the support of certain of the "Morgan directors" and the "Vanderbilt directors,"—even of his director friends, Stillman and William Rockefeller,—as long only as his advice brought improvement to the Central.

It is so much more picturesque and dramatic to recite Harriman's achievements with cash and stocks that little has been told of his object all the time, which was to improve railroads, and his unequalled swiftness and success at it.

UNIQUE AS A RAILROAD MAN.

The system by which Mr. Harriman was real manager of his own roads was unique. "Master of detail" is a term often applied to him, but it is incorrect. With the operation of his lines as they stood on any given day he did not bother, and he could not. But he had his say in advance of every change, even the smallest.

The vice-president and the general manager of any of his big "operating divisions" ran their 3000 miles or so subject to no meddling or interference. But suppose they wanted a tiny station at a country point, or a few hundred feet of side track. They reported to Mr. Kruttschnitt at Chicago, the director of maintenance and operation for the whole system. If he approved, the plan got to New York and to Mr. Harriman. By furious intensity he mastered whole stacks of such typewritten sheets every day. "The reports which came to me," he is quoted as saying, "mean a volume to some fellow, a chapter to his superior, a few pages to Kruttschnitt, and when it finally comes to me you could write the whole of it on the surface of a silver dollar."

One of these reports from the director of maintenance recommended the use of electric block signals, which stood up well under an investigation. They say that Mr. Harriman summed it up like this: "Without electric block signals it is impossible to move trains closer together than forty-five minutes. With the electric block signals we can move trains ten minutes apart. That will give us

more use of our tracks, permit the handling of a greater volume of freight and passengers without additional expense for main line, and also increase the safety of both passengers and freight."

With no more trial, he wired Kruttschnitt to put electric block signals on 1000 miles of Union Pacific lines,—to-day one-third of the total railroad mileage in the United States so equipped.

Through this system of scrutinizing every addition or change Mr. Harriman knew what he was president of, to a degree unparalleled so far, and not likely ever to be.

"NOT YET."

The shortest hint at Mr. Harriman's extrahuman power is one he himself gave,—the famous two words in answer to Governor Hughes' question whether he had attained a certain object:

"Not yet."

Take the much-advertised matter of his animosities. A good hater was he, yet a better railroad man. Not to get money or to "get even" but to get where the traffic was and then to get results, economy of operation,—that was his object. And so he did not swerve from it to grasp at long-desired prizes or to wreak revenge on old enemies. The civilizing agency he represented was resistless without being stubborn, like the motion of the wind or any other natural force. This is so rare that men call it genius, to show that they do know what it is.

To trace the words "Not yet" through Harriman's life, remember that the Union Pacific, as first possessed by the syndicate of which he was an inconspicuous member, ran only from the Missouri River town of Omaha to the desert village of Ogden. For the purposes of earning the interest on the \$85,000,000 the road had cost, it might just as well have begun and ended nowhere. It must be opened to the big terminals, sea-ports, lake-ports, centers of traffic.

Now see how often the goal was blocked to Harriman,—how often the newspaper headlines had him defeated,—for a while.

At first the ways were opened rapidly,—west of the Mississippi. Kansas City and Denver were soon joined to the system through the purchase of the Kansas Pacific. Portland and Seattle were entered from the west by the purchase of the Oregon Short Line and the Oregon Railroad & Navigation Company. Portland, this time from the strategic south, together with the long cov-

eted ports of San Francisco and Galveston and New Orleans, was won in 1901 through the quiet and stupendous purchase of the Southern Pacific, the longest stretch of track on the continent.

Reverses came in the reaching for the cities on the Great Lakes and the ports on the Gulf by any road direct enough to bring them the grain of Kansas and Nebraska, the ore of Colorado and Montana. Harriman already had control of the Chicago & Alton and of the Kansas City Southern. But the Alton was bought in 1904 by the Rock Island interests from under his nose, much as he himself had bought the Southern Pacific from the bankers of Huntington. And the Kansas City Southern dispensed with Mr. Harriman's services as chairman of the executive committee with an irateness on the part of the Dutch stockholders that made big newspaper talk.

"Not yet" can be written at the head of this chapter, however. For in 1906 Mr. Harriman got complete control of the Illinois Central,—the most prosperous north and south line in America and the best route from the Missouri to Chicago and from Chicago to St. Louis, Memphis, and New Orleans.

Above all, the Illinois Central connects at Birmingham, Alabama, with the Georgia Central, which reaches the sea at Savannah. In 1908 Mr. Harriman bought that personally. Here at last was the long dreamed of through route from the Pacific to the Atlantic. And the same force that had cleft the Rockies open to civilization began to pour millions into new track and improvements and better service for the iron manufacturers of Alabama and the cotton growers of Georgia.

Then the newspapers had it in 1905 that at last the Union Pacific mid-continent monopoly was broken. George Gould was building the Western Pacific, virtually the extension into San Francisco of his family heritage, the Missouri Pacific. Mr. Harriman's protest had been disregarded, the story ran.

Yet only three years later the Gould system nearly wore through at its necessary eastern link, the Wabash. There was only about half enough money to pay off the \$8,000,000 notes of the bankrupt Wheeling & Lake Erie, which the Wabash had guaranteed. And it was Mr. Harriman and his bankers who put up the other half; and the consideration they received was announced to be "satisfactory."

Or take the greatest defeat of all,—the epic battle of American financial giants,—Harriman's failure to get the most votes in the Northern Pacific Railroad against James J. Hill and J. Pierpont Morgan to retaliate for their purchase of the Burlington, the Union Pacific's neighbor. The Northern Pacific "corner" of 1901 sent the stock to a thousand dollars a share. Speculators of less than giant size were threatened by the hundred with financial extinction.

Mr. Harriman seemed badly beaten. He had a majority of stock, but some of it was "preferred," and Mr. Hill and Mr. Morgan quoted a by-law and retired it. Then all hands put their stock into the Northern Securities Company to mark a truce; and when the Government dissolved that, Harriman unavailingly protested against the receipt of a very minor interest in two roads,—the Northern Pacific and Great Northern,—whereas he had put in nearly a majority of the former alone.

But he did not sell that stock,—“not yet.” He waited his time, sold at a profit of \$62,000,000, and with the \$145,000,000 thus realized bought stocks of other railroads,—the Illinois Central, Baltimore & Ohio, Atchison, Northwestern, New York Central, and others. Then he was at the head of not only 20,000 miles of rails, but also a railroad investment company beyond all precedent.

If defeat ever became turned into victory it was the first of this year. On the news that Mr. Harriman was to be a director of the New York Central, the stock violently rose. But Mr. Morgan had been a director of it many years. And Mr. Harriman's entrance followed on the purchase of \$14,000,000 New York Central stock with the unexpected funds consequent on the Northern Pacific battle.

The greatest gain through loss of all that Edward Henry Harriman experienced was his respect for public opinion, which in later years he found to be greater than any one man. In the months that have just passed he and it have thought much better of each other, particularly since April 8, 1908, when he saved the Erie from a receivership by putting up \$5,500,000 personally. All the other directors were willing to let the road fall. Now the world sees what Mr. Harriman saw then,—that it would have brought down with it many other tottering corporations, at a time when American credit was painfully low abroad and at home too.



Photograph by Brown Bros., N. Y.

MR. HARRIMAN'S LAST PUBLIC APPEARANCE.

(About to land from his European trip with Mrs. Harriman, who is standing at the left, and his daughters Mary and Carol, his son Roland, and his daughter Mrs. Robert Goelet on the right.)

"Harriman is a bull on America," the Wall Street men say admiringly.

So in the past year Harriman sought the public. It was typical of the man's directness that he established no press agent, such as the Erie and Pennsylvania and Standard Oil have. He sent for the financial reporters of New York City.

They admired him, those keen, oddly experienced young men, who are much less deceived by the great and rich than some of the latter suspect. "Harriman's talk was big, but his head wasn't," you will hear these men say. He had entire, childlike belief in his own sufficiency. No, he snapped once, he wasn't going to raise \$200,000,000 abroad,—he could get it or any other amount at home. But he was never oppressed with importance,—not to the reporters.

They liked him, though they don't like very many of the great figures of finance whom, by the city editor's orders, they are frequently caused to hold up for admiration. They respected Harriman because he absolutely never talked when he didn't want to.

Those who were privileged to hear Mr.

Harriman's last financial words to the public, on his return from Europe, in the stifling drawing room of his car at Jersey City, after he had staggered and stumbled from the boat across the pier, were deeply moved by the triumph of the old efficiency. His voice was weary, but it never wavered. He lay on the couch unable to sit up, but did not miss a single question, pertinent or otherwise. There was the same tense, sizzling current of thoughts in briefest words,—the same refusal to give away his secret plans. "Have you bought the New York Central?" "If I had I wouldn't tell you," quick as a shot,—yet the same straight, businesslike replies on broader matters, like the development of Mexico, the spending of \$300,000,000 more on his Pacific lines, without a trace of the cunning suaveness or the pomp and condescension common to the financially elect.

Throughout, in the shadow of the hand of death, there shone the same recognition of the newspaper man as a quiet, cool cogwheel in the same machine as his quiet, cool self. What matter to insist on the difference of size of the wheels? Both knew it.

Mr. Harriman and his faults are dead. The country has the railroads, and they are first class. Yet such a storm of rumors, wild insinuations, furious hate encompassed him during his ten years in the public eye that something must be said of it.

CRITICS.

Most of the critics were simply ignorant. Those of us in ordinary walks who have watched the working of big railroads feel that when all is said men do these enormous things not after anybody's pattern but as they can.

The reasonable broad objectors who remain recognize that the Union Pacific exploited the West, but believe that it took too great a share of the profit. The \$130,000,000 poured into stocks of Eastern roads could have built the branch lines besought by the population of the 50,000 square miles of Oregon that are encircled, but not penetrated, by Harriman lines.

Then there was the cry against rates,—rates high and rates discriminatory. It is raised against every railroad, but it hit the Harriman lines hardest of any in the United States, because they had a greater monopoly. From Salt Lake to the Pacific, for instance, you must travel either to San Francisco over the Central Pacific (which Harriman bought along with the Southern Pacific in 1901) or to Los Angeles over the "San Pedro," in which a half interest was purchased in 1903. Here was not even "potential" competition,—the restraint upon the charges of an existing railroad for fear that it may excite the building of parallel lines. The relation of the Harriman companies to the legislatures in San Francisco and Salt Lake City has been openly condemned in the outspoken local press. The business men of this section to the number of 3500 petitioned President Taft in 1909 for relief. They also petitioned Mr. Harriman.

What he would have done about it in the course of time, even if public bodies or public feeling had not forced him, can, perhaps, be inferred from his motto constantly expressed of late years to associates:

That he certainly knew the difference between development and throttling, his actual performance to the West is a strong indication.

In '97 the very air was discouraged. But Harriman believed in the West, and he forced some of the richest people in the world

to share his belief and to give the Union Pacific Company the money to realize it. He built up one of the rustiest, bumpiest, most dejected roads on the continent to be the best there is, West or East, in equipment and roadbed.

When the great McKinley boom dawned the Harriman lines were ready to carry freight at lower cost than any others. The three hundred millions put into them made money for the men who raised it. The syndicate got out whole in three years.

It made even more money for the West. The cattle ranchers from Texas to Wyoming, the wheat farmers of Kansas and Nebraska, the fruit growers of Oregon and California, the miners of Nevada and Colorado and New Mexico, the lumbermen of Washington State, the corn and cotton planters of Texas and the Southwest made quicker, better, surer shipments because of Harriman.

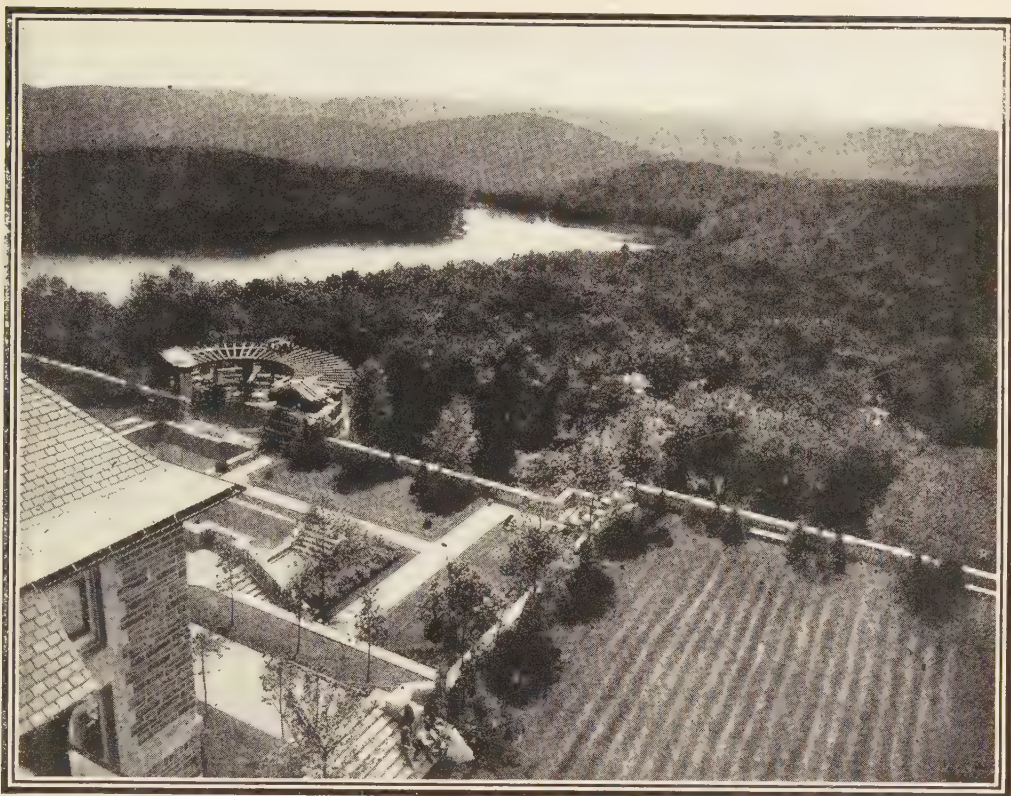
Finally, Harriman's own companies had more at stake than any other corporation when it came to the permanent and real prosperity of the West.

In addition to the liquid assets of the Union Pacific there were others more fixed,—great coal fields, hundreds of oil wells, real estate in boom towns on the Pacific Coast, electric railroads and power lines, Western land by the million acres from the old Government grants,—extensive as New Hampshire, Vermont, and Connecticut put together,—an empire by itself, and worth many times as much because of his daring confidence in it.

Much, perhaps most, of the printed criticisms of Mr. Harriman spread from the fractures his torpedo-like personality put into other people's dignity. One day three reporters entered the long hall on the fourth floor at 120 Broadway. Mr. Harriman, crossing at the farther end, spied them. "Do you want to see me?" he rapped out, as he always did at sight of reporters he knew, even on days when nobody could get near his office.

The newspaper men lost no time; their question on the new financing of the Union Pacific was asked and answered; then one of them, representing a syndicate of sensational news read all over the country, called after the retreating president: "Mr. Harriman, is it true you have been speculating in grain?"

The questioner was out of place, ridiculous. He deserved the rapid fire scorching he got. But next morning the financial page



Photograph by Brown Bros., N. Y.

MR. HARRIMAN'S HOBBY—PART OF HIS 50,000 ACRE ESTATE AT ARDEN.

(Viewed from the new home in which he died before it could be finished.)

of his syndicate suddenly began, and continued nearly every day for more than a month, to call down destruction on E. H. Harriman as the evil genius of American finance.

This story, which the writer knows personally to be true, though never before published, suggests one of the reasons why enough space has been here given to discussing the published attacks on the subject of this sketch.

"YES OR NO."

In business intercourse Mr. Harriman took short cuts. He was often painfully abrupt, to put it the nicest possible way. To a reporter one of his closest associates once said, with the gesture of despair that a suave banker would make before such a distressing fact: "You know Mr. Harriman has no *tact* at all."

His self-confidence was too much for some people. "Mr. Harriman reads a closely typewritten sheet of note paper to us and all we have to do is to vote yes or no, and everybody is afraid to vote No," was the

way a member of a "Harriman" board of directors plaintively put it. Opposition made the little president as irritable as incompetence.

At least with him one knew the worst, face to face. Said his vice-president, A. L. Mohler: "I never heard him speak ill of any person."

Obstacles enraged him. Through or over most he broke or passed, as decidedly, as inevitably, as he tunneled four times through the Sierra Madres at a cost of \$7,000,000 or trestled the famous twenty-three miles of the Great Salt Lake with four and a half million dollars more,—because he found it saved time.

He was as impatient of any objections as he was of "the two factors which work against prosperity,—idle men and idle capital."

Hear one of the directors of a wealthy trunk line, whose head offices are 1500 miles away from the Union Pacific tracks: "Mr. Harriman came to the board meeting and produced a set of typewritten figures. He laid

them on the table, placed his hand upon them and remarked that they were the operating results of our road for the last six months, and that they were not satisfactory to him, and that if the next six months were not more satisfactory something would happen. Then he left."

Mr. Harriman did things first and financed them afterward. Take the 1537 miles now building in Mexico. The \$75,000,000 needed was, according to Mr. Harriman's custom, contracted for and mostly spent before he got it. The Union Pacific lent the money to the Southern Pacific and the president made a note that some day when the money market was favorable he would issue bonds or stocks or something to net him \$75,000,000. He did this only last June.

Though imperiousness was exchanged for geniality in private life, his habit of mind was direct always.

One of Harriman's home companions of recent times told the writer of the thrill he always felt when the bowed head, first moving slightly from side to side in low-voiced conversation, with eyes cast down, suddenly would straighten up. Power smote out of his feebleness. Nothing escaped him.

His instinct to be exact and orderly, to rule by system, was strong until the end. The man who had banged stocks around Wall Street by the ten-million dollars' worth now would smoke only one cigar a day, eating little, reduced for sport to fishing off the dock or playing crouquet,—but every rule of the game was scrupulously observed.

THE START AT FOURTEEN.

Mr. Harriman began to be a reserved, responsible man at the age of fourteen, when he entered a broker's office, and turned his first year's salary over to his father, an Episcopal clergyman, less encumbered with wealth than the ancestor who came over from England in 1800. One year there was only \$200 in the family, and part of that in notes. From the small home in Jersey City "Henry" had walked to the ferry and thence to Trinity School for a while. But his real education began in Wall Street.

Within eight years, at the age of twenty-two, Harriman bought with his own earnings a seat on the New York Exchange.

The firm of E. H. Harriman & Co. made money. Its head played some part in "Street" strategy, and once tried (unsuccessfully) to force the mighty Morgan firm

to make concessions for certain clients who held Erie second mortgage bonds,—in 1903.

People asked how a man who began in Wall Street got to be a railroad man first of all. They forgot that, though Mr. Harriman was conspicuous only in the last ten years of his life, he had been director of the Illinois Central since 1883. From the first he was what few of the sharp Exchange men have been,—a student. He analyzed railroad reports and compared them, looked behind the figures in the days before the Interstate Commerce Commission was there to look, and had his own opinion of what it ought to cost to carry a ton of freight with a given track and engine. Train masters, division superintendents, accountants suffered much annoyance from the small man with the big spectacles, who wore baggy trousers and a soft hat over his eyes, and who kept bothering them for special reports on the cost of this and that. So when his chance came in 1898 he was ready and he was sure.

Though Harriman was only sixty-two when he died, though for only a decade had he been conspicuous in the world of big undertakings, still his empire stood after him. The organization worked as he would have had it. On September 13 his daily associate for many years, R. S. Lovett, chief counsel for the road, was elected in his former place as chairman of the executive committee. Two lifetime backers, Jacob H. Schiff and William Rockefeller, took the two vacant directorships. One change may come,—that no longer will the board of directors, as of yore, depute all their power to the executive committee, which in turn vested its power in the chairman. There was only one Harriman.

Subtract the time he gave to a pure and genial intercourse with family and friends, to making 10,000 East Side boys happy at the great club house he gave them, to the charities (only now coming to light, for he hated thanks), such as the saving of lives among the tuberculous sent by him to Trudeau and other Adirondack sanatoria,—take away the reasonable hours of this purely personal side, and you have a life expressing and producing continuous motion, transmission, communication, which is civilization.

With him an epoch closed,—the one-man rule of great railroads. A group of the world's ablest are keeping up the work,—better, so the critics say. But no one of them could do it as he did, alone and absolute.

ADVANCES IN APPLIED CHEMISTRY.

BY CHAS. BASKERVILLE, PH.D., F.C.S.

(Director of the Department of Chemistry in the College of the City of New York.)

THE problem of energy, usually expressed in terms of fuel, is a most serious one to every nation. Upon the invention of the steam engine, the days of the windmill and old time waterwheel seemed to be numbered; sailing ships gave way to mechanically driven vessels; gas explosion engines and electric power applied to motor vehicles are driving out the horse, without whose aid, at one time, it was thought that no civilized nation could exist. In some ways there is a disposition to revert in part to the old order of things, as is shown in the utilization of water power with improved appliances. Inventors are not without hope of utilizing the ocean tides; in fact, several installations where this is done do exist. The indefinite hope of some imaginative people that we may secure some unknown source of energy is an undependable and gratuitous assumption. Therefore, it is of the utmost importance that the strictest economy is practiced in the expenditure of our fuel capital. In addition to wood, coal, and petroleum, including natural gas and the products obtained from distillation of bituminous shales, the principal fuels, although of much less importance, are lignite, peat, and alcohol. The production of several of these, especially shale oil and alcohol, is directly dependent upon applied chemistry.

We have only recently acquired an awakened conscience regarding fuel. The quantity of fuel required to produce the energy for an industrial process is dependent upon the manner in which it is required to do its work. Once smoke was regarded as an evil, then a nuisance, now it is known as a waste; and none has better cause to wage war against it than he who produces it. A smoking chimney is a thief, not only because it carries visible unburned carbon into the atmosphere, but in nine cases out of ten on account of the invisible gases which are hot and combustible. Regenerated gas heating not only prevents smoke but it is a powerful means of economizing heat. It has been estimated that the saving of national wealth effected by its universal application would amount to a sum sufficient to pay the aggregate national debts of all the civilized na-

tions. What a horn of plenty may be seen outlined in the dense smoke hanging like a pall over some of our cities in this country!

UTILIZATION OF BY-PRODUCTS.

A result of an address delivered before the recent International Congress of Applied Chemistry in London by the writer was the formation of an international commission to consider the formulation of uniform laws for the control of the escape of noxious fumes from chemical works. Lord Derby in 1863 secured the enactment of a law, amended from time to time, known as the "Alkali Act" in England, which serves as a model for other nations. It checked the evil and has saved untold wealth to the manufacturers and that nation as a whole. We have neither definite nor uniform laws bearing upon the subject in this country. The abuse has been checked in certain communities only after the most serious damage has resulted. One illustration will emphasize the point. The vegetation was destroyed in the neighborhood of the Ducktown, Tenn., copper smelters for many miles around by the escaping sulphur dioxide. A plant is now in the course of construction which will produce 300,000 tons of sulphuric acid a year from the gases formerly turned loose in the air. Such acid sells for \$10 a ton.

SAVING THE COAL SUPPLY.

In the opinion of the writer, the most lasting act of President Roosevelt during his administration, was the call for an international conference on the conservation of the natural resources, that an inventory of the world's supply might be prepared. The United States Geological Survey, in its Testing Bureau, is doing work of inestimable value in the study of the utilization of the present and past enormous wastes of coal, and further economies to be practiced in the future. Even when mined, millions of tons of coal are squandered every year in heating the old-time wasteful beehive coke ovens. Saving this is the work of applied chemistry, and it has already been put into practice in some coke works in this country.

PETROLEUM AS FUEL.

The petroleum statistician of the Geological Survey has given data to show that at the present rate of increase America's supply of petroleum will be exhausted in 1935, and if the present output were maintained the supply would last only ninety years. If other petroliferous formations are not found, which is always problematical, then recourse must be had to the bituminous shales, to which the writer, as a chemist, has directed attention. However, most of the petroleum was formerly converted, as much as possible, into lamp oil, but now with the use of oil as fuel heavier petroleums are marketable. By the use of rifled pipes, lubricated by water in the grooves, they may now be readily transported at a very low rate, which was formerly not the case.

Liquid fuel possesses many advantages which we lack space to enumerate. It was thought by some that the internal combustion engine, which uses such fuel, might replace the steam engine, because, while the latter furnishes only about 12 per cent. of the energy of the fuel in the form of work, the former yields 25 per cent., and one engine has been devised which yields 37 per cent. However, the introduction of the turbine has given the steam engine a new and probably lengthy lease of life. The consumption of fuel oil by the railways in the United States has increased enormously. In 1907 it amounted to nearly 19,000,000 barrels; the length of line operated was 13,593 miles, and the total length of line covered by oil-burning locomotives was 74,197,144 miles.

ACHIEVEMENTS OF ELECTRIC POWER.

The conversion of the force of gravity into electrical energy by means of falling water has given an enormous impetus to progress in applied chemistry and has made available large bodies of metallic ores formerly regarded as worthless. The writer has here in mind especially the electric smelting of titaniferous iron ores, which has been proved only within the past five years. The cable tells us of the renewal of the German Potash Syndicate, which controls the natural deposits of potash salts at Stassfurt and lays heavy tribute upon every farmer who uses mixed fertilizers. Electrical energy may yet give relief from such a tax upon every civilized person in the world, for laboratory experiments in the Department of Agriculture

show the possibility of utilizing the abundant insoluble, hence unavailable, sources of this necessary element for plant growth, which exists in every soil, but in comparatively small, yet sufficiently large, amounts. Not only has abundance of electric power made possible new valuable substances, as carborundum, monox, artificial graphite, etc., but it has made possible the production of cheaper aluminum, sodium, caustics, "bleach," chlorine, the recovery of tin, refining of copper, etc., to the extent of two hundred millions' worth annually in this country alone; but, with one or two exceptions, it has stimulated the efforts of many toward the conservation of the forests, for upon these depend a constant supply of water and the avoidance of devastating freshets which destroy the power plants.

THE QUEST OF NITROGEN.

Perhaps the most important practical forward step taken in applied chemistry in recent years has been along the line of the utilization of atmospheric nitrogen. No living thing, plant or animal is known which does not contain nitrogen. It is one of the essential and the most expensive chemical element which is involved in the processes of life. It is present in the air to the extent of 3,900 billion tons, but, like the Ancient Mariner's water, it is not suitable as such for food or drink. It must be combined with other elements, and these compounds furthermore must be soluble in water, or readily rendered so, that plants and animals may use them for foods. The simpler nitrogen compounds used for plant foods are the nitrates, nitrites, and ammonia salts. These are produced by various processes of decomposition of nitrogenous matter, as in the putrefaction of animal refuse, fish scrap, seed meal, or as by-products in the heating of coal, wood, or shale, in making coke, charcoal, or shale oil. The simpler compounds are very soluble in water, hence are readily washed away by drainage. The most valuable of these for fertilizing purposes is Chile saltpeter, 2,000,000 tons of which are annually exported from South America. Sir William Crookes, ten years ago, prophesied that the supply of saltpeter would soon be exhausted, and that by 1935 there would be such a demand for wheat that, even if all the ground now available were planted, the yield per acre must be increased from thirteen to twenty bushels in order to supply it. Twelve million tons of saltpeter will be required per annum in ad-

dition to the 1,750,000 tons now being used for fertilizer. Even if Chile had 50,000,000 tons of saltpeter in 1935, the four following years would exhaust that supply.

On the basis of the present annual consumption, making no allowance for replacement, the air contains enough nitrogen to provide thousands of millions of years' supply of saltpeter, but it must be made available, that is, converted into a soluble compound upon which the plant may feed. This has been a problem to which hundreds of talented men of science have devoted years of labor. The textbooks tell the students that nitrogen is not a combustible gas,—an excusable and tactful error. It does burn in oxygen, but a very high temperature is necessary, and at the elevated temperature the products of the combustion are decomposed into the original nitrogen and oxygen. If, however, the products are quickly cooled as

soon as formed, they do not have time to decompose into the original elements. The products, when brought into contact with more air and lime, form compounds which are soluble in water and are foods for plants. This has been accomplished by the chemists of the "Badische Anilin and Soda Fabrik," by utilizing very heavy electric currents of high voltage produced by the cheap water power of Norway. They expect soon to place annually upon the market 100,000 tons of "air saltpeter," equivalent to the yearly increase in consumption.

Such processes do not participate, as Geheimrath Professor Dr. Bernthsen has reminded us, in the destruction of valuable coal deposits in obtaining the energy, but use "white coal," which with the constant aid of nature, through the principles of evaporation and condensation, may be used over and over again.

A MINE IN THE MAKING.

BY CHARLES R. KEYES.

AS a nation we have at last come to the realization that we have been prodigiously wasteful of all those riches which Nature has so bountifully bestowed upon us. We are startled at the thought that our natural resources may not be after all so boundless as we have with utmost satisfaction fancied. That the end of all is already in sight is a statement seemingly too absurd for any one to believe. Yet the cold dicta of science and statistics are that we shall have to rigidly conserve our mineral wealth if we are long to retain first rank among the peoples.

At fearful cost we have lately learned that rock-oil and natural gas, for examples, are everywhere short-lived. Individual wells lasting four or five years are pronounced good; and one enduring a decade is a wonder. No conservative estimate of the duration of our coal supplies extends the period beyond the century mark. At the present rate of steel manufacture the ores of iron can barely last fifty years. To him looking forward to what the morrow may bring forth the prospect for adequate supplies of the other metallic minerals seems even more perilous. Among all of the metals gold alone bids fair to become more abundant than it is to-day.

Surprising as it may seem, among the five thousand and odd copper companies in this country scant 1 per cent. of them operates paying mines; and the total number of the productive copper mines of the world is less than 250. When, two or three years ago, copper soared in price to 26 cents a pound and Mr. H. H. Rogers, turning alchemist, attempted to make of it a precious metal, he was not the vain seeker after the philosopher's stone that many of his friends fancied. With zinc it is the same story over again; we are already wistfully looking for some new source of the ore before the present reserves are entirely gone. Lead has become so scarce that rocks carrying as low as 1 per cent. of the metal are extensively mined and concentrated. However, the outlook for mine products is not so gloomy as might be inferred.

Better methods, more economical methods, more scientific methods in mining, in milling, and in smelting shall save us, and shall long continue to provide us amply with all of those mineral products which make our modern civilization possible. At the present time the winning of the metals from the caves of earth is undergoing one of the most wonderful and rapid transformations that in the his-

tory of the world any industry has ever passed through. Strange to relate, the mining man no longer seeks the fabulously rich ore deposits, as from time immemorial he was wont. A mine with excessively rich ores reported now at once condemns itself. Only the unwary are lured by such prospects. The keen and knowing miner of to-day is interested only in securing low-grade ores, but in very large bodies. This is, in the main, the real secret of modern successful mining.

Among the great interests which enter into our modern civilization mining plays a powerful and fundamental rôle. Product of the mine is the most important single factor in the material advancement of nations. With the individual a mine is a mint to him who heeds the truths of science even lightly. It is the product of the mine that mainly distinguishes the world of to-day from that of yesterday. Through its evolution the magical progress in all branches of industry is alone made possible.

THE MINING INDUSTRY ON A SCIENTIFIC BASIS.

Within our own generation the industry of mining has become what it never before was since the dawn of history. It has assumed the rôle of a legitimate business enterprise, on as honorable footing as manufacturing, transportation, merchandising, or banking. It may be made as safe as any of these pursuits, and has the advantage of much larger profits. At the present time mining rests upon scientific principles. There is now small excuse for failure.

What makes a mine? The mining engineer, who has practical experience and scientific insight into all phases of the mineral industry, will answer by saying that it is a land property from the bowels of which valuable minerals may be extracted profitably and in commercial quantities. So, also, contrary to popular opinion, an ore is a mineral deposit which, on a merchantable scale, may be worked with profit. Such is the definition which the legitimate business of mining to-day recognizes the world over. A mining proposition passes through a number of distinct stages, or transformations, before such position is attained. Until it does reach this position its stocks are not the proper field in which the general public, or persons unacquainted with the mining industry, should be invited or advised to invest.

With this definition the picturesque prospector of days now gone by does not make

of his lonely claim a mine by simply calling it such. The mountaineer, with his pick and shovel, has only hope strong in his breast. The sturdy little band that is doing development work is yet a long, long way off from a mine. It is by unhatched propositions of this kind that the wily promoter endeavors to entrap the credulous. Not one in a thousand of these schemes develops into a real mine. A dividend-producing mine is made of sterner and better tested stuff.

There is still much of the romantic that envelops the discovery of a mine. The real discoverer is not the hero of public fancy. It is not some ubiquitous prospector who first happened to locate a claim that chanced long afterward to develop into a working property. It is the quiet and unassuming engineer and geologist who from his exact scientific knowledge of mineral deposits and the manner of their occurrence, first carefully calculated beforehand the making and possibilities of the property, and on whose advice capital was sufficiently encouraged to go ahead. There is, indeed, magic enough in this. In nicety of calculation, in assurance of success, and in certainty of forecast of results in working detail the figured-out problem compares more than favorably with that of any other manufacturing enterprise. It is this feature more than any other that takes modern mining out of the hazardous class of businesses and allies it with the most conservative of commercial undertakings. The game-of-chance factor, which in mining is the *bête noir* of so many, lies largely in the minds of those who are not familiar with the industry. The same may be said with equal truth of every other branch of commercial activity. There are countless "wild-cat" schemes in the industries other than mining, though they may be hidden from view under more polite titles.

In the making of a mine there are, as in man, seven ages. Many, and in fact most, people mistake the first stages for the more mature; and they naturally get youthful returns,—that is, no results at all.

THE FIRST STAGE,—A "PROSPECT."

Every mine has its beginning in what is called a prospect. A "prospect" need be merely a bit of ground upon which promising mineral, irrespective of quality, quantity, or value, has been discovered. Only a single one out of the hundreds of prospects which are located has the making of an actual mine.

Federal laws require every holder of a

mining claim to do a certain amount of development work upon it each year until it is patented. This assessment work, as it is called, may be done year after year without the discovery of pay-ore in quantity. Assessment work is usually done in the most desultory fashion. Little attempt is made to conduct the effort in a systematic way, according to definite plan and engineering principle, which are such fundamental factors in the making of mines.

The bent and hoary-headed personage, who has braved every danger and endured every hardship that falls to the lot of man, no longer holds the high post that he was once popularly supposed to occupy in mining economy. His methods of work and his ideas of mines are now obsolete. His species has already become nearly extinct. It was his custom in days gone by to nurse his prospect, frequently for years, with the hope that some day some one would happen along and see, deep down beyond the range of human vision, a mine, for which prophetic insight a fabulous price would be paid him. In his distorted fancy the old prospector always has a rich mine, and it is wholly unnecessary for any one to do very much exploratory work in order to prove it.

SCIENTIFIC MINE EXPLORATION.

The second stage in the development of a mine includes a considerable period of exploration. In its present aspects this is not only a quite modern feature, but one of the most important of all. Up to a generation ago it was little regarded. To-day it draws upon the most advanced, skilled, and varied scientific knowledge. It is the most critical stage in all mining activity. For the success of a mining property more depends upon the correct interpretation at this time of the observed facts relating to the ore-bodies than upon perhaps all other factors combined. It is the exploratory feature that in modern mining eliminates so completely the uncertainties which have from the earliest times attended the mineral industry. This is given first place by the most successful operators of the present time in all parts of the world. The great and certain results attained amply attest the wisdom of the course.

To modern geological science is mining mainly indebted for this important service. The application of geologic principles to the winning of the metallic ores has become of late so general among large mining corporations that there has grown up a distinct

branch of the old-time mining engineering. Extraction of the metals from the earth has thus resolved itself into three widely different activities, each requiring special supervision. Before the serious work of the other two, and chiefly during the exploratory period, come the most important and far-reaching investigations of the geologist. Upon the results of his exact inquiries all the future plans of the mining enterprise are constructed. The work of the geologist is the very newest adjunct to successful mining operations. It has aided so vastly in diminishing the chances of failure of mining projects that all of the great concerns in the business strive to engage the very best talent of this kind available.

DETERMINING A STARTING-POINT.

The location of the mine-shaft, or adit, in the third stage, is a matter of very much greater significance than it has been customary to consider it. It vitally affects the entire economy of operation. In many cases the success or failure of an enterprise rests very largely upon the favorable or unfavorable situation of the starting-point. The determination of this feature involves in the beginning the drawing up of the plans for the complete workings both above and below ground. Mature results of the investigations of the geologists, engineers, and all others are expressed in epitome in these plans. With these forming a firm foundation all future work may be entered upon with confidence and the full assurance that success will attend the efforts. This stage bears the same relation to the working mine as the architectural plans do to the finished edifice.

DEVELOPMENT OF THE MINE.

The fourth stage in mine evolution is that which is technically called development. Before mining proper can be undertaken it is both advisable and necessary to block out a considerable quantity of ore in order that a sufficient number of men may be kept always at work to insure a constant daily output commensurate with the maximum capacity of the treating plant. All effort is for the time bent toward this end. In a well-regulated mine this branch of the work, in fact, never ceases; but continues, though in somewhat diminishing degree, perhaps, as long as the mine is operated.

A mine reaches its maturity when the rate of ore-producing on a commercial scale becomes constant. Many a promising venture

is early wrecked by attempting to attain this fifth stage too soon, and without passing through those earlier stages which naturally must precede. A child learns to crawl before it can walk. No mine can become a dividend-payer before it has passed through a proper period of development and has entered upon this fifth stage.

The last stages, those of milling and smelting, are intimately connected with the excavatory. Since the operations of these two stages are so often carried on apart from the digging they are only too frequently regarded as standing outside of the realm of mining. Then, too, the plants necessary to conduct these portions of the industry are quite often situated at some center, where large supplies of ores from many different localities may be readily secured, enabling greater economy to be practiced than is possible in small local plants.

OTHER FACTORS THAN QUANTITY AND QUALITY OF ORE.

If, in the successful operation of a mine, there were no other considerations to be taken into account than the determination of the mineral bodies of sufficient size and of high enough grade, all the calculation would be simplicity itself. This is rarely the case. Each proposition is a distinct problem. There are many other factors which enter into each before a mining proposition may be made to yield a profit above the original cost of the property, the cost of the plant, and the operating expenses. For example, in some localities lead ores cannot be taken out even when they contain as high as 15 or 18 per cent. of the metal; while elsewhere ores running as low as 2 per cent. yield handsome returns on the investment.

Besides having sufficient quantities of ore and ore of high enough grade there are more than a score of other important factors which have to be given careful attention. Neglect to express with definite values any one of them in the beginning may be the very rock upon which an otherwise profitable enterprise may founder.

Such vital factors are availability of the ore, cheapness of transportation to mills and

smelting centers, nature and price of labor, cost and kind of fuel, character of the ground in which the ore occurs, amount of timbering necessary, quantity and quality of water, character of the ore and of the country rock, nature of the ore deposits, disposition of the ore-bodies, character of the associated mineral or earth, the climatic conditions, kind of milling necessary, distance to markets, and the nature of the ores for smelting purposes. In the development of mines, except when supervised by trained engineers, most of these factors are commonly overlooked. Every one of them deserves as much consideration as quality and quantity of ore.

INVESTORS SHOULD INVESTIGATE.

How, then, and in what sort of mining propositions should the general public invest? Stocks or interests should be bought only after the most deliberate and rigid scrutiny of all features mentioned, and in the same manner as in the case of purchase of a horse or cow. If a person have limited knowledge himself of the merits of a mining property he may easily consult some reputable mining engineer. Stocks offered on the market for a few cents or a few dimes a share and which are "going to double in value next month, or soon after," are to be shunned entirely. As in other branches of industry, the investing public must deliberately discriminate between "fake" and legitimate enterprises.

Legitimate mining is one of the most satisfactory branches of business. The profits are large. More adequate returns on the investment are yielded than in almost any other line of commercial enterprise. Wealth that mining creates is not tarnished. Success in this field is neither steeped in blood nor bathed in tears. Competition only enhances property values and brings smiles and good feeling among neighbors instead of scowls and bitter hatred; it is eagerly sought, not fought. In this respect mining stands out unique in the business world. Mining commands the best brain and brawn of the nation and the age. Nor is its scientific aspect less alluring. The story of its modern development forms one of the fairy tales of science.



LEADING ARTICLES OF THE MONTH.

THE SWEDISH GENERAL STRIKE—A DANGER SIGNAL.

IT would be premature to venture a prediction regarding the probable consequences of the general strike in Sweden to those immediately concerned. It would be futile to prognosticate in reference to the part,—if any,—a government of reactionary tendency will assume in the settlement of a labor disturbance with a strong political background and the outward aspect of a revolt. But from the extent and character of the comment in European periodicals one might be justified in the belief that a danger signal has been set that will be heeded and that in the legislative programs of European nations regulation of the relations between capital and labor, between employer and employed, will be forced to the foreground.

Dr. L. V. Birck, a professor of political science at a Danish university, contributes an article to the September issue of *Gads Danske Magasin* (Copenhagen), which appears under the caption "The State and the Social Struggle." In this article the Swedish general strike is pointed to as an example to emphasize the urgent need of a clearer legal definition of the rights and duties of the state to intervene in labor disturbances when these become extensive enough to paralyze the activities on which the comfort and well-being of any large portion of its population depend or when they threaten the cohesive power of the government.

Professor Birck declares that the general strike in Sweden has rendered the question of the rights and powers of the state a most vital one. Proceeding in a keenly and coldly analytical vein the writer admits that most labor legislation of to-day constitutes an encroachment on the right of contract and of the individual to manage his own private property and that, from the liberal viewpoint, the only inherent functions of the state are to conduct war against outward foes and exercise judiciary powers at home. But the right of contract, the professor argues, presumes equal facilities for both parties to enforce its terms. He holds that the state

should see to it that this balance of power is maintained and holds that this duty supplies the justification for intervention.

To any one who is not moved by bias in favor of either employer or employed, but is swayed solely by consideration of the public good and from a desire to preserve intact the productive forces of the country and to safeguard the future strength as well as provide for the future needs of the race, the growth of either party into any great superiority in strength must be looked upon as somewhat of a disaster.

The Swedish strike involved some 200,000 workmen. It was brought on by an earlier lockout involving about half that number. Professor Birck looks upon the general lockout, which he characterizes as a "revolt from above," as more menacing to the commonwealth than the general strike, which he terms a "revolution from below." To justify this assertion he marshals statistics which show that during the seven years, 1895-1903, 2,700,000 working days were lost through lockouts, while only 900,000 days were lost through strikes. He maintains that these disturbances in the labor world in reality exposed the weakness of the Swedish Government, which suffered its first defeat when it permitted the general lockout and its second defeat when it permitted the Employers' Alliance to turn down its offer of arbitration to prevent the general strike.

Any person at all equipped to deal with questions of political and economic purport is apt to regard a general strike as tantamount to a rebellion, because, while it lasts, the powers which rightly belong to the state as the law making and law enforcing authority are transferred to a strike committee. It is in itself an encroachment on the police powers of the state when in order to drive a wagon on the streets of Stockholm one must have a permit from the leaders of the strike. Behind the permits of the strike committee there are powers which assuredly are not the powers of the state. As a revolutionary measure the general strike is a dangerous weapon, perhaps fully as effective as the building of barricades. A "peaceful" general strike, however, easily becomes a *contradictio in se*, partly because it brings on a paralysis of the functions of the commonwealth,—which in the long run must prove as injurious to the striking workman as to those he is seeking

to combat,—and partly because it cannot for any length of time retain its peaceful aspect. Were this possible and could a "peaceful" general strike last, for instance, four months, it necessarily would accomplish its purpose. But a general strike of that duration would be impossible, in the first place because the workingman does not possess the economic means of resistance to keep the struggle up for that length of time, and, in the second place, because it would lead to the disintegration of the commonwealth. A general strike can scarcely last longer than five weeks before it either is broken or ends in armed revolt. If such a strike be aggressive to the end of enforcing unreasonable demands it must be suppressed. Should it be merely defensive the government must bring pressure to bear on *both* parties to the struggle.

In proposing labor legislation to prevent the recurrence of general strikes and lock-outs, Professor Birck admits that the law-making power will find itself on dangerous ground most of the time, and that any such purpose should be achieved only by degrees.

The writer holds that the government undoubtedly has the right to compel the incorporation of both labor organizations and organizations of employers and eventually to establish certain general rules governing the calling of strikes or proclamation of lock-

outs. Such rules, the professor holds, might prescribe what majority should be necessary for action resulting in the severance of relations between employer and employed and who should be entitled to vote (the exclusion of minors and men in the trade not actually employed). He believes that the government might carry its power of regulation one step further by fixing a minimum time limit within which notice must be given prior to a strike or lockout. As a final act the government might require the filing of bonds by both labor organizations and employers to render them financially responsible for losses growing out of any breach of contract.

One rather striking proposition is made in connection with this proposed regulation of labor by the government. Professor Birck asserts that a law should be enacted making it a prison offense for employees of public service corporations to go on strike. In return, the professor holds, the state should erect about this class of workmen the same safeguards and afford them the same protection and benefits which now are accorded to government employees.

JAPAN: A COUNTRY WITHOUT A LABOR PROBLEM.

IT is universally admitted that in the arts of war all the other nations of the world learned much from the Japanese in their victorious struggle with Russia, both on land and on the sea. It would seem that in the arts of peace, also, they are able to teach the older nations "just a thing or two." With a population of about 50,000,000, Japan has not more than 20,000 annually of her citizens who seek state aid; the total expenditure on the destitute and indigent usually does not exceed \$100,000 a year, and of this sum not a cent is due to problems of unemployment. Writing in the *International* (London) for August, Dr. J. Ingram Bryan, of Kobe, Japan, explains just why Japan has no labor problem. He says:

The genius of Japanese civilization apparently does not favor those exigencies of labor that in other lands give rise to problems of unemployment. Without any of those advantages which the American and European laborer enjoys from labor unions and charity boards, the Japanese, in respect of sturdy self-reliance and fecundity of resource in economic emergency,

shows himself far superior to any of his class in Occidental lands, not to say anything of his less expenditure on upkeep and his greater capacity for endurance. The Japanese laborer never allows himself to become a burden on the state.

It would be quite erroneous to suppose that this immunity from labor troubles is due to favorable industrial conditions. For two years past "the commercial and industrial classes in Japan have been suffering from an unprecedented depression seriously affecting all lines of productive activity." The projectors of numbers of large and important enterprises found themselves compelled to curtail their operations, and, as a result, thousands of workmen were thrown out of employment. Coming, as it did, at a time when taxation was a heavy burden on the people, when the cost of living was steadily increasing, and when unpopular restrictions were being put upon emigration, this would, in most countries, have resulted in grave and probably aggressive disaffection among the unfortunate workers. Such was not, how-

ever, the case in Japan. To quote Dr. Bryan again:

In Japan there was no agitation among the forces of the unemployed; nor can they be said to exist in any number large enough to become a factor in the industrial situation. There is, of course, some industrial discontent in Japan, but it does not arise from want of work; rather is it that healthy uneasiness which marks the progress of industrial evolution in all countries.

What impresses one in Japan, says Dr. Bryan, is "that under the most adverse conditions of labor the unemployed do not congest into demonstrative mobs, but peacefully adjust themselves to the situation and find occupation in some other way." This "desirable disposition" is not to be ascribed, of course, to any "innate aversion of the Japanese labor class to riot and violence; for on other occasions of adversity a resort to questionable means of settling disputes is only too frequent." In this respect, therefore, the remarkable difference between the Oriental and Occidental laborer can be ascribed only to "some peculiar quality of Japanese civilization which enables the native of Nippon to adapt himself more harmoniously to the accidents and involuntary movements of the labor world."

According to Dr. Bryan, the explanation is to be sought "in the solidarity of the family and the propensity of the average laborer to maintain some connection with the soil. Every individual in Japan is supposed to have

a family connection sufficient to sustain him in time of emergency and need." Moreover, the self-reliance of the Japanese is simply remarkable:

Unless it be a case of physical incapacity or other unpreventable occurrence, no Japanese laborer will allow others to support him for long. He is no sooner out of one job than he sets about to find another, the whole community assisting him; and he has, as a rule, been so brought up that he can turn his hand to many kinds of work, and soon finds something to occupy him and bring in an income. In any case it is the family and not the community or state that must be responsible for him whatever the cause of his incompetence.

This family solidarity has been strengthened by the natural circumstances of the land:

For ages, his, the Japanese, race has been accustomed to a frequency of emergency that has inured him to great endurance and rendered him naturally free from fear of discomfiture. Living in a land of earthquakes, tidal waves, floods and typhoons, the Japanese have become familiar with the unexpected and regardless of the future. A conflagration may lick up in an hour his city of chip-wood dwellings, but in a few days it rises as before. No amount of adversity daunts him or inclines him to depend upon the nation to maintain him.

Then, again, more than 65 per cent. of the laboring class in Japan have some profitable association with agriculture. This stands the laborer in good stead "when the allurements of industrial centers prove a disappointment."

THE "HAPLESS PLIGHT" OF SPAIN.

THE present condition of Spain, torn as it is by conflicts within and without its borders, forms the subject of the initial article of a late number of the Berlin *Gegenwart*. The anonymous writer shows in forcible language how the tragic destiny which has overtaken that once mighty realm is but the logical sequence of a reign of bigotry.

Once more, as in the days of Charles Martel, the sword of the barbarian is striking against the gates of the land. Thousands already welter in their blood, and defeats are multiplying daily. But the distress of the country no longer arouses the sense of honor, the spirit of patriotism of the days when the Spanish nation was the most persistent and successful opponent of the first Napoleon. It is not a passing adventure which Spain is experiencing to-day, nor is it a revolt which flickers and rapidly dies out that now rages in town and country. We hear the march of destiny bent upon fulfillment

become irresistible because the people who dwell in that richly dowered land have forfeited their vigor and their claim upon life. It is indeed possible that the final catastrophe may once more be averted through the aid of strangers, not by the strength of its own people, but it is nevertheless inevitable, and a long period of terrors is in store for the country.

Everywhere the nations strive and struggle to maintain their political rank and to assert their economic standing. Spain's entire export of commodities, continues the German writer, embraces little beyond what Nature itself yields without man's effort.

Agriculture languishes; its meager contrivances are a faithful reflection of the national character. The Castilian peasant toils only for the benefit of his landlord; industry, which has here and there modestly sprung up, owes its rise to foreigners; all the treasures which its vast colonial possessions once yielded the mother

country have disappeared. To be sure, the flaming stake exists no more; inquisitors no longer burn heretics or witches; but the spirit of the time when Peter Arbuez traversed the land and Ignatius Loyola created the order of Jesuits breathes still to-day from every corner of the land. It is, moreover, by a natural reaction that in this country the revolutionary forces manifest themselves the most strongly. For, after all, the spirit and will of a whole people cannot be shackled; nature rebels, and the more awful the misery, the more dreadful will be the excesses.

Revolt against fate, the writer continues, the natural protest against spiritual and economic subjection, has,—passing the bounds of the social-democratic movement,—bred an eccentric anarchism in Spain which has claimed many victims; among them, a dozen years ago, the brilliant Don Antonio Canovas del Castillo.

Altogether, it is a remarkable fact that the anarchist movement has its most numerous and ardent adherents in countries of Latin stock. In Italy Malatesta preached, first of all, the bloodiest doctrines and organized societies which beheld salvation only in the wisdom of Michael Bakunin. In Spain the band of *mano negra*, the Black Hand, has fostered anarchism. Even in its statutes it calls itself a band of the propertyless organized to wreak vengeance against the exploiters, who must be annihilated by dagger, poison, and fire. In Barcelona, Santander, and Madrid, in the provinces of Alicante and Murcia, in Andalusia and the lowlands, rich in corn, of the Guadalquivir,—everywhere has this band, as well as the Federacion de los Trabagadores, gained followers; and all the cruelties resorted to in order to suppress them have not diminished their number. Ever recurring bomb explosions recalled their existence and undiminished energy. They form now, too, the élite among those unfettered, wild hordes which not only in Barcelona but in a great section of the country are rising against the kingly government. When war with the

United States was threatening, Maria Christina could still, like Maria Theresa in Hungary, appear in the Cortes and, with the "confidence of her mother's heart," express the hope that "the Spanish people would rally around the throne of the youthful king and support him with unconquerable strength." And now? How different! The younger soldiers desert in masses or fraternize with the people, and the reserves and militia secrete themselves in hiding-places or flee across the border in order to avoid taking part in the conflicts of the streets or being sent to the hopeless waste of Mellila. It is the collapse of national civilization which is now taking place, when the flames are wrapping about the walls of the fatherland.

Some English Comment.

In the *Fortnightly Review* Mr. A. Garvin waxes ecstatic over Spain and what Mr. Cunninghame Graham calls her filibustering expedition. He declares:

It is not enough to be scrupulously neutral. Spain, and this partly in spite of herself, is the banner-bearer of the credit of all civilization in the north of Africa, and it is our duty to extend to her all the moral support in our power. With less than 50,000 men, it is improbable that any definite impression can be made upon the Rifians, and it is not inconceivable that even heavier reinforcements may be required.

Dr. E. J. Dillon, in his monthly "round up" in the *Contemporary Review*, says:

It cannot be doubted that from the racial point of view the cause of Spain is the cause of Europe. If the Spaniards were driven from their *presidios* all Europe would feel the consequences throughout the world. People and government, clergy and episcopate, are all responsible, in various degrees, for the almost hopeless state of prostration into which the once virile nation has sunk. The Spanish people, deprived of vision by the teachers paid to instruct it, is perishing of mental, moral, and physical inanition under a régime of legalized anarchy.

ENMITY TO THE PEACE MOVEMENT.

MOST people imagine that the object of the Hague peace conferences is to spread the idea of the desirability, yea, the necessity, of peace for the general good of mankind. And theoretically, at least, this may be true. But it has probably been observed by the not too credulous and the not too optimistic that while the governments represented at The Hague warmly advocate pacific international agreements in the cause of the aforesaid general good of mankind, yet individually every government sticks tenaciously to its right to fight. Yet even these more sceptical observers will have to acknowledge themselves behind the times. For now a book is promised which shows how a delegate to The Hague may not only outwardly defend his nation's prerogative to fight but may be inwardly determined that his nation shall fight. So Privy Councillor Karl von Stengel, a German member of the first Hague conference of 1899, in a recent issue of Maximilian Harden's little brown weekly, *The Zukunft* (Berlin), publishes extracts from his own forthcoming volume which deals in detail with the whole



THE PRICE OF ARMED PEACE, TOLD IN THE COST OF THE WORLD'S GREAT ARMAMENTS.

(In these two graphic diagrams the *Illustrated London News*, basing its figures upon the data supplied by the current issue of the "Statesman's Year-Book," shows the cost in money of supporting the armies and navies of the world.)

peace problem. He quite candidly scorns and belittles the "pacifist" idea, does this Hague peace conferror. After analyzing the origin and describing the growth of the contemporary,—and to him altogether objectionable,—peace movement, and after assailing human brotherhood, free trade, individualism, socialism, industrialism, and then expressing contempt or suspicion of England, Russia, France, and America in turn,—all this with little of modification or qualification,—Herr von Stengel proceeds:

It must be stated emphatically that in its ultimate aims the peace movement is not only as Utopian but as dangerous as the social-democratic movement. . . . One can readily understand that social-democracy [the name of the form of socialism most prevalent in Germany and championed by a large party bearing the same name in the Imperial Parliament] is combated from the standpoint of present-day social and legal notions, because its purpose is to upset existing canons of public and private rights. . . . The same is true of the peace movement. Whether distant centuries will really witness an era of *perpetual peace*,—with that the present has no concern. The determining factor, however, is that the peace movement strives to overthrow international legal relations as they now exist, to abolish the independence of the nations that are to be absorbed into a world-federation,

and vigorously to oppose national sentiment. Particularly from this point of view would the further spread of the peace movement in Germany be most deplorable, since thereby the national sentiment and the military spirit needed by the German people in the interest of its self-preservation would both be weakened. . . . The political situation of the German Empire is a difficult one. We are *actually* surrounded by enemies. Therefore, the German Empire, despite the thoroughly peaceable disposition of the German people, cannot give itself up to any policy of peacefulness as the friends and promoters of the peace movement would have it. It cannot put off its powerful armament, reduce its standing army to the grade of a constabulary force, sell its ironclads for old iron, and bind itself to submit all differences to an international court of arbitration at The Hague. It would be political suicide for Germany to disarm in the belief that it could secure its rights at The Hague in case of an international dispute. The best protection for a country's rights always remains its strong sword. . . .

The friends of peace have often expressed their regret that the peace movement has made more progress in some other countries than in Germany. But the German people is to be congratulated that it has not fallen more under the spell of this movement. Where peace vaporizing and cosmopolitan humbug may land a state Prussia was obliged to experience in 1866-67. Quite properly is the collapse of Prussia at that time largely ascribed to the unmartial, unmanly views, void of all national consciousness, which

had in authoritative circles been gaining ground, owing to the cosmopolitan, humanitarian, and high-cultural tendencies of the day. . . .

We Germans have every reason to regard peace propaganda not only with suspicion but to fight them in real earnest, because the peace movement signifies a cosmopolitanism hostile to national sentiment and because unhappily in our own country such ideas have far more adherents and admirers than anywhere else. It seems, none the less, as our heroes in Southwest Africa have proved, that the danger is not yet so very great of the German people losing the joy of strife and contempt of death that the old Teutons had. . . . The German people must not only be externally armed by the possession

of a powerful army and navy but inwardly by a warlike spirit. It must in all its parts be permeated with the firm determination in the last resort to vindicate its position, its rights, and its interests against all comers sword in hand. But that is just what the friends of peace do not wish. To attain their object of abolishing war they quite consistently try, by their propaganda, to stifle and extinguish warlike and military sentiments in the nations of the earth. . . . We must prevent pacifist ideas from taking root in our growing youth, which would destroy the heroic fighting spirit of our young men, inculcate detestation of military service, and brand sacrifice for one's country as a thing foolish and monstrous.

SAN FRANCISCO'S WATER-SUPPLY AND THE YOSEMITE NATIONAL PARK.

IT is a curious and somewhat remarkable fact that so surely as the question of a public water supply arises in any of our large cities there inevitably follows a conflict of local opinion developing the intensest partisanship and characterized by extreme acrimony. The latest case in point is that of the city of San Francisco, which seems to have "a pretty quarrel" on its hands, originating in a proposal to increase its water-supply by flooding the Hetch-Hetchy Valley, which is a portion of the Yosemite National Park. Arguments for the project are presented by Mr. Warren Olney in *Out West* for July; and in the same issue of that magazine the opponents of the scheme are championed by Mr. E. T. Parsons. Stated briefly, Mr. Olney's case is put thus:

The city of San Francisco has now a population approaching five hundred thousand. The cities of Richmond, Berkeley, Oakland, Alameda, San José, and the towns and villages between, all bordering on the bay, aggregate as many more. How great the population will be a generation hence no man can tell; but it will certainly be counted by the millions. The streams flowing into the Bay of San Francisco being barely sufficient to supply the present population, the cities and communities about the bay will shortly be without a sufficient supply, unless water is obtained from some source other than the immediate neighborhood.

San Francisco is at present supplied by the Spring Valley Water Works; Oakland, Berkeley, etc., by the People's Water Company; and both of these corporations maintain that their property rights are greatly enhanced in value by the fact that there is no other available source of water for the people in the vicinity of San Francisco. The people must purchase the plants of these corporations; but to meet the needs of the growing communities more water

must be obtained from a distance. There is one stream that has a flow of water sufficient to satisfy the needs of all the cities around the bay for many generations to come. It will cost San Francisco \$40,000,000 to bring this water to the city; but it is safe to say it will cost her \$10,000,000 to \$20,000,000 more to obtain a sufficient quantity of water from any other Sierra river than this one, upon which there is no valid prior claim except two irrigation districts. This river is the Tuolumne River. It has the largest and best water-shed, and has a larger flow, and far and away a better reservoir site than any of the other streams accessible to the people. Shall the people be refused the use of this water and be compelled to go without Sierra water or to assess themselves \$10,000,000 to

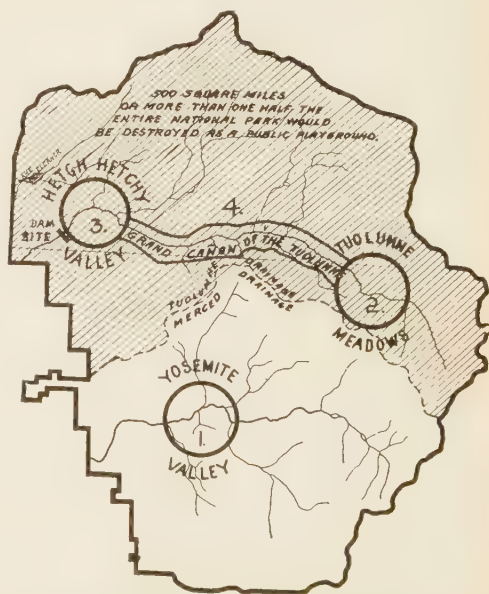


DIAGRAM OF YOSEMITE NATIONAL PARK.

\$20,000,000 more to get water from somewhere else?

The Tuolumne heads on Mounts Lyall, Dana, etc., flows through a stretch of comparatively level land known as the Tuolumne Meadows, with an elevation of 9,000 feet, and then pitches into a gorge twenty miles long, at the further end of which the canyon walls expand and include Hetch-Hetchy Valley with an almost level floor. At the lower end of the valley these walls "come together again and a man can easily throw a stone across the stream." The walls are of granite, and it is claimed that a dam 250 feet high can be constructed at a comparatively small cost. The advocates of the scheme maintain that "there is not on this round earth in all probability so fine a site prepared by Nature for a reservoir."

The objections to the plan,—the only two that Mr. Olney considers deserve any consideration,—are (1) that it will make a lake of the beautiful valley, and (2) that the people will be deprived of the pleasure of visiting and camping in the Tuolumne Meadows, twenty miles above the valley. To the first of these Mr. Olney replies that "the lower end of the valley is a wet meadow, where the mosquitoes constitute a frightful pest"; that "very few people visit the valley, although its character has been known for forty years"; and that President Roosevelt, Secretary Garfield, and Mr. Gifford Pinchot were all agreed in favor of turning "this beautiful but mosquito-breeding meadow into a beautiful mountain lake."

The second objection Mr. Olney considers "still more unreasonable." Owing to their elevation, the meadows are only accessible at all for two or three months in the year; and "to reach them necessitates a long journey and camping out at night. The result is that very few people go to Tuolumne Meadows, and very few ever will go." Mr. Olney is convinced that "the sympathy between financial interests desiring to use national resources for personal exploitation" and "a desire to hit the Roosevelt administration" had much more to do with the opposition to the project than any regrets of the "nature lovers" for the contemplated destruction of the beauties of the valley and of the country above it. Before proceeding to an examination of Mr. Parsons' article it should be stated that the legal situation is as follows:

The United States Government many years ago parted with its title to the larger part of



Photograph by J. N. Le Conte.

THE HETCH-HETCHY FALL.

(The volume is greater than that of the Yosemite Fall; at times of high water it may be heard many miles.)

the floor of Hetch-Hetchy Valley to certain individuals. After this land had been patented to these people the city of San Francisco bought these lands. What was desired of the United States Government was that the United States should consent to the flooding of these lands in the valley to which the United States retained the title. That is to say, if a dam is built at the lower end of the valley, and the lands flooded by an artificial lake, the lake will cover lands belonging to the city of San Francisco and also lands belonging to the United States. What was wanted was an Act of Congress authorizing an exchange of the lands belonging to the United States in the floor of the valley for lands outside of the valley owned by the city. The city of San Francisco can do whatever it pleases with its own lands in the Hetch-Hetchy Valley. It wants the other lands on the floor of the valley, so that there can be no objection to its turning this valley into a lake.

Mr. Parsons, in outlining the history of the scheme, says that certain advocates of it secured from the Secretary of the Interior a permit to flood the valley, but the permit contained the condition that the supply from Lake Eleanor, reinforced by the Cherry River, should first be developed to its utmost capacity. The city advocates "have been striving to get Congress to confirm the Sec-

retary's grant, which is revocable at the discretion of any Secretary." The Committee of the House of Representatives, to which the bill was referred, was evenly divided, eight members signing reports adverse to the grant. From these reports we extract the following paragraphs:

I am of the opinion that the city has failed to establish its contention that the Hetch-Hetchy is the only reasonably available source of water supply in the Sierras. . . . We are opposed to this resolution in its present form, as it does not sufficiently guard public interests. We believe that its passage will eventually exclude the public from the Hetch-Hetchy Valley and the Tuolumne Canyon, and we are not willing that that should be done, as it does not appear that it is necessary for the city of San Francisco to obtain this property for a water supply. . . . If this source is essential to San Francisco, the grant should be made. But San Francisco has not made out a case showing that it is essential.

Condensed, owing to our limitations of space, Mr. Parsons' contentions, are:

That only one-third of the valley is subject to temporary flooding: the other two-thirds are a high landscape garden. . . . Instead of being a rich man's playground, the valley is destined to be primarily a health-giving resort for the wage-earner. . . . A system of drainage and a liberal use of petroleum will eradicate the mosquito nuisance. . . . The Hetch-Hetchy can be made accessible all the year with the expenditure of a few thousand dollars. . . . The travel into the national park is now 1000 a year, and in a few years will reach 10,000 annually. If each traveler spends \$100, this would mean placing in circulation in the State \$1,000,000 a year, or 5 per

cent. on a capitalization of \$20,000,000. . . . That according to the terms of the Secretary's permit, all the natural flow of the Tuolumne must be allowed to pass on down the river to the irrigationists, which will lower the water level in the reservoir and expose an unsightly and ill-smelling margin of slime and decay,—“a mountain temple will be turned into a mountain sepulcher.” . . . It has been estimated by an eminent engineer that 60,000,000 gallons of water a day can be brought to San Francisco from the south fork of the Eel River, for a little more than a third of what the city engineer has estimated it would cost to bring in the same quantity from the Hetch-Hetchy system.

Of the canyon between Hetch-Hetchy and the Meadows Mr. Parsons writes:

This canyon, as yet traversed by few, has never been adequately photographed nor described. In the opinion of John Muir and others who have seen it, its majestic grandeur of cliff and crag, its variety of cataract and waterfall, the softened beauty of its hospitable camping spots in wooded glen and grassy bench,—all will make it rival the most celebrated scenic resorts of the world when a horse trail and eventually a road through its length opens it to the park travel.

The endangered district is described by Mr. Parsons as “a region of enchantment that lures the traveler back to it again and again . . . a paradise for the outdoor man that no other mountain parkland affords . . . a haven of peace after a storm . . . a garden of paradise shut in from the troubled outside world.” This is the valley which, according to Mr. Parsons, “is belittled and misrepresented by the advocates of an unworthy cause.”

FRANCE AND OUR NEW TARIFF.

AS mentioned in the analysis of the Payne-Aldrich tariff in the September issue of the REVIEW, the new law, “in the case of the French agreement, which does not provide for due notice as to its termination, directs its termination on November 1.” The eminent political economist M. Paul Leroy-Beaulieu, in his own journal, the *Economiste Français*, takes his countrymen to task for the unenviable position in which they find themselves in relation to the new tariff. In his opening remarks he alludes to the fact that “the tenacity of Senator Aldrich has triumphed over the more liberal intentions of President Taft.” He goes on to say that “in the North American tariff revision one fact strikes the public particularly,—namely, that it is made to apply to different coun-

tries at different dates.” “Now,” he says, “it has been generally held that the ‘most-favored nation’ clause equalized matters for different nations; they were all subject to the same régime. But this is no longer the case with European countries under the American tariff.” The new tariff went into effect on August 6 of this present year. Under their agreements with the United States, England and Germany are granted a delay of six months from that date; Italy, Spain, Portugal, and Holland a delay of one year; while Switzerland and France are subject to the new duties on and from November 1 next. For this unsatisfactory state of affairs M. Leroy-Beaulieu tells his countrymen they are themselves to blame:

If we are in a situation more grievous than

that of the English, the Germans, the Spaniards, the Italians, the Portuguese, and the Dutch, in regard to the American market, it is our own fault. We owe it to our stubborn exclusiveness, to our own thoughtlessness. We insist on remaining masters of our tariffs; but others remain equally masters of theirs; and it is for this that we shall suffer from the first of November next.

The United States was disposed to make a treaty with us; but the term "treaty of commerce" raised a crowd of prejudices.

The present situation of France vis-à-vis the great North American federation is in no wise a convenient one. The Americans have two tariffs: one, the maximum, a tariff of rigor and punishment; the other, the minimum, a tariff which ought to be one of friendship but which is seen to be excessively high. If we attempt, what is naturally the first action, to raise our duties on American products, since America increases her duties on ours, we run the risk of incurring the American maximum tariff.

M. Leroy-Beaulieu reminds his compatriots that the double tariff,—the maximum and the minimum,—which constitutes "a terrible menace at the present time," is a system that they themselves invented in 1891; it is "a creation wholly French." The moral to be drawn from all this is that France must renounce her commercial exclusiveness and assure the future,—at least the immediate future,—by commercial agreements requiring precise tariffs and having a more or less extended duration. If a reluctance toward ten-year treaties is manifested then let the period be for five years, whereas "for more than eighteen years we [the French] have not had one extending for more than a year." With regard to the effect of the new tariff on French commerce M. Leroy-Beaulieu gives the following figures:

It is estimated that the exchanges between the United States and France in 1908 exceeded a milliard francs,—589 millions of American products introduced into France and 528 millions of French products entering the United States. These totals are nearly equal. But it is much easier for America to tax our products, whether luxuries or reputed luxuries, such as our wines, brandies, silks, and objects of art, than it is for us to tax certain important American products which are raw materials, such as cotton.

The chief American products subjected to duties more or less heavy in France are mineral oils (petroleum, essences), preserved meats, fresh and dried table fruits, woods and wooden blocks, pork and lard, and, since the annexation to the United States of Puerto Rico, certain colonial products, such as cocoa and coffee. Per contra, our wines, brandies, silks, articles of dress, objects of art and *articles de Paris*, and cheese have an extensive market in the United States.

The duties on our wines, in casks or in bottles, have been increased from 30 to 60 per cent.

All the French products included in the Franco-American agreement of a value of at least 35,000,000 francs pay to-day more than 13,000,000 duties, nearly 40 per cent.; these would have to pay nearly 20,000,000, or about 60 per cent.

M. Leroy-Beaulieu then proceeds to show that other countries during the periods of grace allowed them with respect to the inauguration of the new duties will enjoy immunity from the increase of taxation, which will work an injustice toward France. Especially is this the case with sweet wines, in the sale of which France takes the lead. He considers, however, that it would be very unwise for France to seek reprisals. What she should do is to secure "the most-favored-nation" treatment,—that is to say, the postponement of the inauguration of the new tariff until the dates conceded to other countries.

But there are still other arguments for these concessions which may be invoked. "During the financial crisis through which America recently passed she found in the French market an invaluable support. She was able to dispose of about 400,000,000 francs of railroad bonds: 250,000,000 of the Pennsylvania Railroad and 145,000,000 of the New York, New Haven & Hartford." These financial relations of the United States "ought, to the mutual advantage of the two countries, to become more frequent and more close. They certainly furnish one good reason why the United States should treat France at least as well as she treats other European countries."

The hope is expressed that France will gain her first point,—a postponement of the operation of the new tariff until August, 1910, which will assimilate France to Italy and Spain; or at least till February, 1910, which will assimilate her to Germany and England. This first point gained, it will be France's duty to conclude agreements or treaties for a definite period with a minimum of five years. "France," says M. Leroy-Beaulieu, "is now the only country in the world with an absolutely stationary population. The insufficiency of her home markets will, on this account, become more and more felt. It, therefore, behooves her to find external markets, without which her commerce will suffer fatal decay. The generalization of commercial agreements and a minimum duration of five years for such agreements are the conditions absolutely essential to prevent the recurrence of alarms such as those actually experienced by many of our producers as a result of the sudden revision of the tariff of the United States."

IS THE SPIRIT PHOTOGRAPH "A SHAMELESS IMPOSTURE"?

ALMOST simultaneously from both sides of the Atlantic come charges that the so-called spirit photography is a fraud pure and simple. The scientific journal *Knowledge* (London), referring to the co-operation of three professed spiritualists and three expert photographers for some months, has the following to say:

The three spiritualists reported that the photographers were not in a proper frame of mind to succeed in obtaining spirit photographs. The photographers announced that no scrap of testimony was put before them to show that spirit photography was possible.

More than this, certain alleged spirit photographs having been submitted to the photographers for critical examination, the latter reported that, so far from exhibiting any evidence of their supernatural origin, the photographs in question showed on their face that they were nothing but frauds.

In the new Philadelphia monthly, *Photographic Progress*, Mr. Thomas Bedding, its technical and scientific editor, and formerly editor of the *British Journal of Photography*, declares that "of all the impostures ever palmed off upon a credulous world, spirit

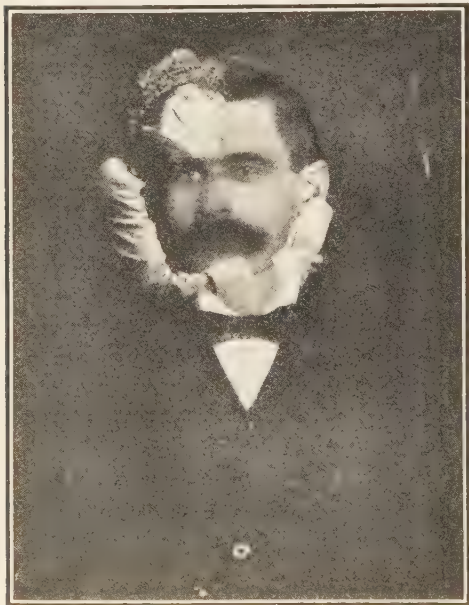
photography is the most shameful and the most shameless. . . . The thing is a lie and a fraud"; but, "like many other lies and frauds in this age of credulity," it is difficult to kill. Mr. Bedding cites an amazing case of fraud which he himself detected a few years ago:

My predecessor in charge of a journal of which I subsequently became editor was an old journalistic friend, and I served as his assistant for a few years. He was interested in spiritualism and spirit photography, and to this day the devotees of those intellectual cults quote his name in support of their belief, as they do those of Sir William Crookes, Prof. Oliver Lodge and other eminent persons. Taylor one day received a photographic print entitled "The Silent City of Alaska." It was a view of a large and handsome city; and . . . the suggestion and the story were that this was a photograph of an aerial image,—of a mirage, if the reader will have it,—of an airy insubstantiality visible to the eye and the camera in far-off Alaska, and photographed by one of the faithful on the spot. It was a spirit city; at least it was as such that an occultistic friend of Taylor asked that gentleman to accept it. So, perhaps, Taylor might have done had I not been at hand to prove by close and deadly comparison that the alleged view of the "Silent City of Alaska" was only a copy of a photograph of the English city of Bristol—cathedral towers, church spires, housetops, and all. So the thing was labeled fraud and the sale of the photograph was stopped. Afterwards some foolish persons attempted to prove that a reflected image of Bristol city was transmitted across the Atlantic some several thousand miles and could be, and was, photographed on the Alaskan clouds.

A CONVINCING EXPERIMENT.

Mr. Bedding is perfectly frank in defining his position. He asserts that he knows nothing whatever of spiritualism and that he approached the question of spirit photography (so called) with perfect impartiality, as any other expert photographer might have done. At the suggestion of some spiritists he tried an experiment, which he describes in the following words:

I placed two sensitive plates in a dark slide and held the slide between the palms of my hands. Then I thought,—furiously and of things in general. The implication or the suggestion was that upon development the plates would show an image of,—something or somebody external to the scene of operations. After development and fixation the plates bore films of perfectly clear gelatine,—only that and nothing more. I was somewhat pityingly informed



FRAUDULENT "SPIRIT PHOTOGRAPH."

(Reproduced from Carrington's "Physical Phenomena of Spiritualism.")

that I was not a sensitive subject; was in fact, nonsympathetic. . . . After that some wonderful nonlenticular photographs were shown to me. They were pictures produced, presumably through psychic agency, by a sensitive subject simply holding light protected plates between his hands. One of the prints looked like a mass of cloud cumuli; the other was a photograph of a painting of Cardinal Wolsey which hangs in the Royal Palace at Hampton Court, England. Of such is the kingdom of psychic photography! Why should the aural emanation of an obscure twentieth century seeker after psychic knowledge take the photographically form of a picture of Henry the Eighth's disgraced cardinal?

In Mr. Bedding's judgment certain factors are essential to success in spirit photography,—the dupe, the photographer, and the medium. "The dupe usually has plenty of money, a special sorrow for his dead, and some kind of belief that the spirits of the departed revisit the earth and may be photographed. The photographer trades upon the profession of a similar belief; the medium is in active sympathy with both, and . . . is invariably a clever and unscrupulous rascal." As to how the "spirit" photographs are produced no question exists in the mind of the expert photographer. To quote Mr. Bedding:

The *modus operandi* is simple enough. The photographic plates are (1) impressed with these "psychic" images before they are exposed upon the living sitter, either by copying or contact; (2) a transparency is interposed between the plate and the sitter; or (3) at the moment of exposure a "psychic" figure, previously made up, glides into the field of view and passes out of it before the lights are turned up. The purely photographic part of the matter is so simple that spirit photographs in all styles and in any quantities can be ordered and dealt with just like other articles of commerce. The success of the business is only limited by the fatuity and banking account of the dupe.

A friend of Mr. Bedding's once showed him a photograph of his mother who had been dead many years, and whose spirit was reported to have appeared at a recent séance. Of this picture Mr. Bedding says:

The lady in question seemed to be wearing her earthly garments in her heavenly home. I was under the impression that tailor-made gowns and fashionable millinery formed no part of an immortal soul's stock-in-trade. On the other hand, if they do, it is curious that they do not wear out. I pointed this out to my friend, and his explanation of the phenomenon was that the deceased lady's clothing became spiritized after death.

Incidentally, as illustrating the humorous side of spiritualism, Mr. Bedding relates the



ALLEGED "SPIRIT PHOTOGRAPH."

(Photograph of an "Ancient Spirit," taken by man at left.)

following incident, in which a friend of his was the central figure:

At one of the séances, which of course were held in the dark, it was announced that John Knox would shake hands with any one present who desired to have the honor of doing so. The tangible spirit of the great Scottish religious reformer duly appeared according to program. Among those with whom he shook hands was my friend H., who was a jocular person. H., during the séance, smeared his hand with aniline violet, and so grasped the spirit's hand with his palm and digits thoroughly wet with the dye. When the spirit had gone the round and vanished in the darkness, the lights were turned up and one of the party, an elderly gentleman, was seen to have a violet stain on his hand and violet stains on his white hair and beard, over which he had, presumably, passed his hand in doffing his spiritualistic garb. The delinquent was easily discovered and H., to his joy and delight, was denounced for his meanness and denied admission to subsequent séances. Like the Society on the Stanislaw, this spirit circle broke up in confusion.

Those who care to study this subject will be interested in a recent work entitled "Are the Dead Alive?" by Mr. Fremont Rider, and Mr. Hereward Carrington's "Physical Phenomena of Spiritualism." The accompanying "spirit" photographs are taken from Mr. Rider's comprehensive treatise on the subject.

THE MEXICO OF 1909.

FOR the first seven decades of the nineteenth century the history of Mexico probably included more turbulence, bloodshed, and internecine war than has been the lot of any other country within a similar period. In 1867, the year in which Maximilian, Napoleon's ill-fated nominee, expiated the offense of his short-lived rôle of emperor, few would have been found bold enough to prophesy that within forty-two years Mexico would hold the honorable position before the world that she holds to-day. Still fewer would have been those who would have admitted the possibility of one and the same man occupying the presidency for an almost continuous period of thirty-three years.

The constitution of the Mexican Republic, which was adopted in 1857, provides for a representative, federal form of government similar to that of the United States. But whereas in this country there seems to be a sort of feeling, akin to an unwritten law, against a third-term presidency, Mexico in 1887 enacted an amendment to her constitution specifically permitting the election of the president for consecutive terms; and it is perhaps not too much to say that to this amendment Mexico owes most of the prosperity and progress which are her distinguishing characteristics to-day. President Porfirio Díaz is now serving his seventh term, and there is every reason for concluding that on December 1, 1910, he will be elected for the eighth time. Good reason has he to be proud of his part in bringing Mexico to her present pitch of prosperity, with a balance on the right side for the fiscal year 1907-08 of \$9,297,200, an excess of exports over imports of \$18,178,100 for the first half of 1908-09, and a reduction of her national debt of \$1,486,000 during 1908.

PRODUCTION AND INDUSTRIES.

The mines of Mexico are her chief source of wealth. In 1907-08 they produced: Gold, \$19,048,000; silver, \$42,723,500; copper, \$12,400,000; coal, \$3,500,000; lead, \$2,700,000; besides other metals than those just mentioned, \$1,700,000; and mineral oil, \$1,000,000, bringing the total mineral production for the year up to \$83,071,500. The *Bulletin* of the International Union of the American Republics, in a review of Mexican progress, from which these figures are taken, says:

The best-paying gold mine in North or South America is the Esperanza at El Oro, Mexico, which paid its owners during the year 1908 \$1,180,000, and since its incorporation the sum of \$9,427,500, or 419 per cent., on a capitalization of \$2,250,000.

The exploitation of the petroleum deposits in northwestern Mexico will give a great impetus to the development of that part of the Republic. The Mexican oil-fields, which cover an area of over 800 square miles, increased their output in 1908, as against that of 1907, by more than 500 per cent.

The annual value of products of the soil, fruits, and cattle marketed exceeds \$200,000,000, the chief items being: Corn, \$50,000,000; cotton, \$17,000,000; heniquen, \$16,000,000; sugar, \$13,000,000; and coffee, \$8,000,000. In this connection the *Bulletin* says:

The coffee crop for 1906 and 1907 fell far below the average (88,000,000 pounds), but the estimates for 1909 place the crop at 81,000,000 pounds. . . . The year's output of sugar, 123,000 tons, showed a gain of 4000 tons. The shipment of raw sugars to England is being profitably carried on. . . . One of the immediate benefits to be derived from the construction of the Nazas River dam at San Fernandez will be an immensely increased cotton yield in the Laguna district. . . . The growing of the so-called tree cotton is attended with profitable results.

The cultivation of rubber has passed the experimental stage, the product for export having increased from 7000 pounds in 1900 to 182,219 pounds in 1907.

There are 995 tobacco factories in the Republic, their output being for 1907 525,259,735 packages of cigarettes, 134,055,669 cigars, 164,308 kilos of smoking tobacco, and 27,800 kilos of snuff.

The government seeks to aid native industries in every way, as, for example, by allowing the National Packing Company to receive all its supplies of machinery free of duty for a period of twenty years, and the free importation of agricultural machinery, cattle for breeding purposes, seeds, etc. By a law passed in 1908 the expenditure of \$12,500,000 in irrigation works was authorized, and during the last half of the year 142 applications for water privileges were considered.

The total mileage of railway lines is 14,857 miles, 11,850 miles of which are government-controlled lines. The merger of Mexican railways, known as the "National Rail-

way of Mexico," which came into operation on the first of February last, is capitalized at \$230,000,000. Immense impetus has been given to transportation enterprises by the construction of the Tehuantepec Railway, which crosses the Isthmus of Tehuantepec. To quote the *Bulletin*:

This road, which is nearly 190 miles long, was constructed chiefly with British capital . . . and was built for the specific purpose of handling freight between the Atlantic and Pacific oceans. The harbor of Santa Cruz, the Pacific terminus, is equipped with breakwaters inclosing a harbor area of over 130 acres, of which 96 have a depth of 33 feet and a dry dock capable of accommodating the largest ship in the Pacific Ocean.

Other items of interest in the *Bulletin* are the following:

In many respects the greatest event in the history of Mazatlan and the state of Sinaloa was the completion of the Southern Pacific Railway to that point on April, 1909. . . . On December 12, 1908, President Diaz formally opened the new railroad from Guadalajara to Manzanillo.

The rail communication established between Guadalajara and Colima and thence over the line already in operation to Manzanillo gives Mexico a second transcontinental railway connecting the two oceans. . . . Steamship communication with Pacific ports is being inaugurated. . . . The Compagnie Générale Transatlantique has established a regular freight service between France and Puerto Mexico, the Atlantic terminal of the Tehuantepec Railway.

MISCELLANEOUS ITEMS OF PROGRESS.

Immigration and colonization are receiving the attention of the government, and 300,000 acres of land in the Territory of Tepic have been acquired for the establishment of American agricultural colonies. Active measures have been taken to preserve the archeologic monuments of the Republic; and the exportation of archeologic remains is prohibited. Wireless telegraphy is probably used more satisfactorily in Mexico than in any other country. Taken altogether, it will be seen that the Mexico of 1909 is a mighty prosperous one, of which president and people alike may justly be proud.

WHERE OUR MAHOGANY COMES FROM.

THERE are certain articles and materials in common use concerning the origin of which the general public has the vaguest ideas. Mahogany is one of these. Many persons are under the impression that there are forests of mahogany, just as there are forests of pine and redwood; and comparatively few Americans are aware that the mahogany of which their dining tables and bureaux are composed has in all probability made two journeys across the Atlantic before being manufactured into the pieces of furniture which contribute to the comfort and beauty of their homes. In the *Bulletin* of the International Union of American Republics there is in course of publication an interesting and valuable series of articles on the hard woods of the Americas; and the August issue treats of mahogany. The writer states that "there is no such thing as a forest of mahogany."

The pine tree loves its own kind, and never thrives better than when planted by nature or by man, one tree next to the other, over mile after mile of plain or mountain. Other trees are found in groves or clumps, seeming to form little settlements within the woods. The mahogany tree, however, lives by and for itself alone. It stands solitary of its species surrounded by the smaller trees and dense undergrowth of the

tropical forest, rearing its head above its neighbors. . . . Two trees to the acre is a liberal estimate for mahogany "finds." More frequently, perhaps, only one tree will be found over a larger stretch of territory; and one instance is on record where a company, after securing a concession to cut the timber within an area of 40 square miles, found only 60 trees, an average of less than 1 tree to 400 acres.

True mahogany is the only species of the *Swietenia mahogani*, the name *Swietenia* "having been given to it in honor of the celebrated Baron von Swieten, physician to Maria Theresa." It is "distinctly a native of tropical America" and frequently towers to a height of 100 feet, the trunk being often twelve feet in diameter. It is of exceedingly slow growth; and "the time of its arriving at maturity is probably not less than 200 years." Occasionally "small specimens have been found in southern Florida, and a similar tree, never reaching the height of its American relative, however, has been located in India." Africa, "in addition to the real, exports a false mahogany." It appears that the best mahogany is found between the latitudes 11 degrees and 23 degrees 10 minutes north, the wood grown nearer the equator not being of so good a quality.

Cortes and his companions, after their



A MAHOGANY LOG FELLED FOR THE AMERICAN MARKET.

(To be sawn when it reaches the northern mill.)

maker, in fashioning a candle box," and shortly afterward it became "the popular wood from which to make furniture and other articles of luxury." The methods in vogue for collecting the wood are still very primitive; and they are thus described by the *Bulletin* writer:

Mahogany cutting usually commences early in the rainy season, from June to January. . . . The "hunter" cuts his way through the thicket to the tallest tree he meets, which he climbs, and from the top of which he surveys the surrounding country. At the cutting season the leaves of the mahogany tree are of a yellow-reddish hue, and the accustomed eye can from a great distance discern the place where it will be found. He then descends and . . . goes directly to the spot he had located from his lofty point of observation. A trail is then blazed from the road to the tree, and cutting is begun. . . . It takes two men the best part of a day to saw through a tree. . . . Logs are hauled to the river during the dry season. . . . Much of this work is done at night. In fact, the felling of the tree is begun by the waning moon, partly on account of the superstition of the cutters. . . . The practical reason for carrying on the more arduous labor at night is that neither men nor cattle could withstand the intense heat of the jungle [in the daytime]. . . . Only the best and biggest logs are exported, the smaller ones being utilized as ordinary lumber on the spot for the construction of houses.

London is "the mahogany center of the



MAHOGANY HEWED INTO SQUARE "STICKS" FOR THE EUROPEAN MARKET.

world." Here, selling mahogany logs by auction is still the custom of the trade. Here the pick of the forests can always be found, and here come merchants from every direction. "In fact, the best class of logs from tropical America are carried first to England, many of them sold to manufacturers in the United States, to be finally imported through the Atlantic seaboard, thus having traveled twice across the ocean in their journey from the forest to the factory." For the English trade the logs are hewn square.

Besides its handsome grain, mahogany possesses the advantage that its beauty enhances rather than deteriorates by age. It "seasons well; it does not warp, twist, nor split; it is also non-inflammable. For veneering, as

many as 200 sheets to the inch can, by modern machinery, be obtained from a single log."

The United States in 1908 imported mahogany as follows: From Great Britain, \$766,863; from Mexico, \$603,252; from Nicaragua, \$264,546; from British Honduras, \$227,219; from British South Africa, \$112,872; besides smaller importations from India, the West Indies, and various countries of Central America.

One reads with regret that "the mahogany trees of the tropical forests are being slowly, but none the less surely, cut down. No effort is made to preserve the timber lands, or to foster the growth of the younger trees."

SHACKLETON'S SUCCESS IN THE ANTARCTIC.

ALTHOUGH Lieutenant Shackleton failed of the primary object of his perilous journey, still the results of his exploration in the Antarctic far exceed in importance those attained by any previous seekers after the South Pole. Among these results the gallant explorer is able to point to the following:

Farthest point south reached, 88° 23'; about one hundred mountains surveyed; magnetic pole found and position determined as in the vicinity of latitude 72° 25' S., longitude 154° E.; eight mountain chains discovered; the volcano Mount Erebus ascended, summit being about 13,120 feet above sea level; discovery of coal and other minerals; besides numerous coast surveys.

Lieutenant Shackleton's own account of his expedition is being published in *McClure's*. It is a straightforward, modest narrative of "moving accidents by flood and field, of hair-breadth 'scapes," on which the intrepid author is distinctly to be congratulated. This was not his first venture into Antarctic exploration. He had been a member of the National Antarctic Expedition in the *Discovery* in 1901, under the command of Captain Scott; and it was, he tells us, after his return therefrom that, feeling how much had yet to be discovered in that little-known portion of the globe, that he decided to attempt the organization of another exploring party. One reads with regret that "the initial difficulty was that of securing the necessary funds"; that "the scientific equipment was the most complete we were able to secure, but lack of funds made it impossible for us to obtain everything that we would

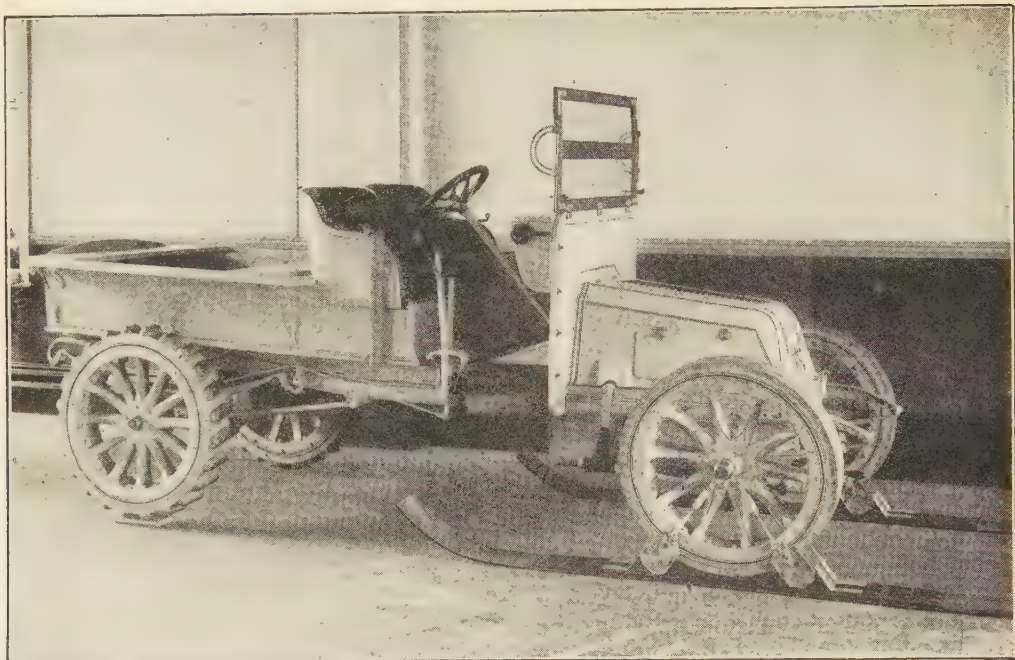
have liked"; and that the expedition started "equipped as far as funds would allow." Such statements are not creditable to a great nation like England; at the same time, all the more honor is due Lieutenant Shackleton for his perseverance in the face of such a formidable initial difficulty. The expedition set sail from Torquay in Devonshire on August 7, 1907, on a little vessel named the *Nimrod*, described as "a forty-year-old sealer, well qualified to face rough work amongst the ice"; and some interesting details are given with regard to the food supply and the equipment.

FOOD SUPPLY AND EQUIPMENT.

The first essential was a hut for the winter quarters . . . this was constructed of wood, and was taken south in sections, all carefully marked. . . . The outside measurements were 19 by 33 by 12 feet, and it was insulated with cork and felt as a protection against the cold. . . . The shore party was finally increased to fifteen men, so that the winter quarters were none too roomy.

Flour and sweetstuffs, such as jams, golden syrup, sugar, bottled fruit, and dried fruit, formed a considerable part of our supplies; for in the intense cold there is a natural craving for sweet things and for puddings made with flour. We had supplies of tinned meat, fish, etc., but we largely supplemented these by the use of seal meat during the winter, as the fresh meat would help to ward off scurvy. For the sledging expeditions, pemmican, procured from Copenhagen, and several preparations of a special character designed to give the maximum of nourishment with the minimum of weight were taken.

We provided ourselves with thick "Jaeger" woolen clothing, and over this we wore thin wind-proof Burberry material, which proved



THE AUTOMOBILE USED BY LIEUTENANT SHACKLETON ON HIS ANTARCTIC EXPEDITION.

most efficient in resisting the icy blasts. For wearing about the hut we had thick Russian felt boots, and for use on the march *finneskoe*, which are large Lapland boots made of reindeer skin, with the furry side out. Jaeger sleeping-bags and blankets were used in the hut, while for use on the march we had sleeping-bags of reindeer skin, with the fur inside.

PONIES AND AN AUTOMOBILE USED.

Besides the sledges and dogs "a new departure was made by the use of Manchurian ponies and a motor-car. These ponies are probably the hardiest animals in the world." The motor-car was "a new Arroll Johnston," specially adapted to meet the test of rough traveling in low temperatures; and though it could not be used on the soft snow, it proved of value in drawing sledges over the sea-ice.

Winter quarters were established at a spot on McMurdo Sound, "twenty miles north of the point at which the *Discovery* expedition wintered."

IN WINTER QUARTERS; THE ASCENT OF MOUNT EREBUS.

Life in the hut was not uninteresting. Each two men had a cubicle of their own, 7 by 6 feet. . . . Our dividing curtain was painted to represent a fireplace, with a cheerful fire burning in the grate. . . . The table in the center of the hut was hoisted up to the roof when not required, and this gave room for the various oper-

ations carried on by members of the expedition.

When we had settled down we began to turn speculative eyes toward Mount Erebus. I selected Professor David, Mawson, and Mackay to try the ascent. A supporting party, consisting of Adams, Marsh, and Brocklehurst, was to assist the main party. Eventually all reached the summit. On the way a violent blizzard raged for a night and a day. Brocklehurst's toes were frostbitten; and one had to be amputated. They found the crater "between 800 and 900 feet deep, with a maximum width of half a mile, and at the bottom could be seen three well-like openings, from which the steam proceeded. . . . The party found the height of the mountain to be 13,350 feet and that the moraines left by some gigantic ancestor of the Great Ice Barrier ascend the western slopes of the mountain to a height of fully 1000 feet above sea-level."

The explorers played hockey and football in the open when there was sufficient light and bridge, poker, and dominoes at night. A small printing-press had been taken along; and with this a book, "*Aurora Australis*," was printed. The covers were made out of parts of the packing cases in which the food had been carried. Winter quarters were left on September 22, 1908. On that day Professor David, Mawson, and Dr. Mackay started for the magnetic pole, which was reached on January 16, 1909. A month later (October 28) Lieutenant Shackleton, accompanied by Dr. Marshall, Adams, and Wild,

started on his long journey for the South Pole. Depots with provisions had been previously laid out. The ponies had been trained during the long winter months; and now each man led one, taking turns at traveling at the front and breaking the trail.

THE START FOR THE POLE.

The first camp was Hut Point, and here the party was detained till November 3, owing to one of the ponies going lame. Here, too, the worst difficulties of the journey began. We condense from Lieutenant Shackleton's narrative the more important and interesting items:

On November 7 they were only thirty miles south of Hut Point, "in a maze of crevasses"; and on that day the supporting party returned to winter quarters. The ponies were well fed so long as there was food. When this ran short they were "killed in a merciful fashion," and the carcasses provided food for the party. On November 22 new land,—a range of mountains,—was seen for the first time. On December 7 Wild was nearly lost in a crevasse in which a pony disappeared completely. At this time each man was hauling a weight of about 250 pounds. On December 12 the terrible journey over the ice chasms began. Three miles in a day was all that could be accomplished. The ice "rose to hills and descended to gullies." The explorers were "a mass of bruises where they had fallen on the sharp ice."

EAT THEIR CHRISTMAS DINNER AT 85 DEGREES
SOUTH LATITUDE.

By December 18 an altitude of 7400 feet on the slope of the Grand Plateau had been gained;

and a week later the Christmas dinner was eaten at latitude 85° South. It was "a splendid dinner,—pony ration boiled up with pemmican; oxo and biscuit; plum pudding, with a drop of medical brandy; cocoa, cigars, and a spoonful of crème de menthe." That very day it was decided to reduce the daily ration. It was now about 570 statute miles to the Pole.

THE POLE HAS TO BE ABANDONED.

On January 4 the party was advancing over a vast snow plain, with no land in sight; and each man was carrying a load of seventy pounds. On January 6 they camped in a blizzard in latitude 88° 7' South. The wind was blowing at the rate of seventy or eighty miles an hour. The blizzard did not break till two days later. Then it was decided that the members of the party had "just about reached their limit." A final march was decided upon. "Half running, half walking, we made that last march, and at 9 A.M., in latitude 88° 23' South, we hoisted the Union Jack. We could do no more, for to go farther meant abandoning all hope of getting back to our depots. The Pole, though only ninety-seven geographical miles away, was impossible for us to attain. . . . We took a photograph of the party, with the Queen's flag blowing out in the icy wind that cut us to the bone, took possession of the plateau on behalf of his Majesty, and immediately began the march back to our camp; our faces once more turned north.

Lieutenant Shackleton states that the most powerful glasses showed no sign of land, and that he could safely assume that "the geographical South Pole was situated on this immense plateau, between 10,000 and 11,000 feet above sea-level, and certainly the coldest and one of the most stormy parts of the world."

THE CRISIS IN THE RURAL LIFE OF THE MIDDLE WEST.

ONE hundred and twenty-four years ago Thomas Jefferson, writing to John Jay from Paris, said: "Cultivators of the earth are the most valuable citizens. They are the most vigorous, the most independent, the most virtuous, and they are tied to their country and wedded to its liberty and interests by the most lasting bonds." And thirty-one years later, in a letter to Crawford, he declared that "the agricultural capacities of our country constitute its distinguishing feature." This view was generally held throughout the Atlantic Coast; and even the merchants who "had their country homes and spent their leisure on their well-kept estates" were agreed upon "the agricultural basis of the economic state." The above extracts from Jefferson's letters are

quoted by Mr. Joseph B. Ross in a very thoughtful paper in the *North American Review* on what he terms the "agrarian revolution" in the Middle West. All the expectations of the early settlers of the Mississippi were, he says, "bound up with agricultural life."

The productiveness of the soil and the anticipation that the squatter claims would increase in value were the foundations of the financial visions of every one. There was, indeed, some interchange of denizens of town and country even at this time. The learned professions were recruited for the most part from the farms. The brightest of the boys became attorneys and physicians, the more seriously disposed became ministers, and the daughters of the farm oft-times married the successful professional men and merchants of the county towns. But in this

movement from the country to the town there was no depletion of the former.

The present day, however, is witnessing a movement of personalities in our rural districts which is "assuming the proportions of an agrarian revolution." In place of "the shifting of an occasional child to the city from the country home" there is now "a wholesale removal of the farming classes to the cities." It is no longer a case of "the movement of a surplus of individuals to an adjacent town; it is now the removal of the staid families which have given value to a neighborhood." It will be remembered that the Atlantic States witnessed an agrarian revolution during the nineteenth century; but that was due to the exhaustion of the soil. As Mr. Ross observes:

Farms were abandoned because they had ceased to be productive. Families which had once been opulent were reduced to poverty because their landed estates refused to yield further produce. . . . The present revolution in agrarian affairs is due not to soil exhaustion but to marvelously enhanced productivity of the soil.

To estimate rightly the significance of present conditions in the Middle West one must take into consideration the agricultural history of the Mississippi basin generally. This may be divided into three periods:

In the Northern States east of the Mississippi the first period extended from about the beginning of the nineteenth century to the year 1835. Land was abundant and cheap. It could be obtained from the Government by original entry for from one dollar to five dollars an acre. . . . It was a period of landlord cultivation. A small percentage, not to exceed one-tenth of the occupied land, was owned by non-resident speculators. . . . In this period there was much wild land, roads consisted of cow-paths and blazed trails, houses were of logs, and all buildings were small and meager.

The second period extended approximately from 1835 to 1890. Land advanced . . . to about seventy-five dollars an acre for the choicest tracts. . . . Farms tended to become smaller. Cultivation was pursued by the owners personally or they directed tenants in the cultivation of the lands and received a share of the produce as rent. . . . Roads were much improved and railroads were established from time to time which afforded convenient markets within a few miles from every farmhouse. The farms were improved intensively; and some attention was paid to drainage. But the principal consideration was given to the erection of commodious homes and ample barns. . . . The chief pride of the landowners was in their broad acres. They believed that of all men they were the most blessed, nor would they have exchanged their lot for any other upon earth.

About the year 1890 the second period drew to a close. . . . It had been an evolution from the period of settlement, which was natural and expected. The third period, in so far as it has already advanced . . . has been unexpected. First of all there has been a rapid advance of land values. . . . Land which in the closing years of the second period could not be disposed of for ten or twenty dollars an acre now sells readily for a hundred dollars. . . . Large sums have been spent and are being spent for the improvement of the land directed almost wholly to the rendering of the land more productive.

But "farming has been commercialized." In spite of the fact that drainage has now become a matter of public enterprise, that main roads and minor highways have been improved, that telephone lines connect the farmhouses with each other and with the market towns, "landlord cultivation has given place to a cultivation by tenants."

The "agrarian revolution" is in its most advanced stage in the northeastern portion of the Mississippi Valley; in other parts of the Middle West it has scarcely begun; some of the States west of the Mississippi are still in the second period, while in the Southwest the first stage has not yet been passed. The causes of the "present agrarian exodus" may be briefly stated thus: The increased value of their farm holdings and the augmented productiveness of the soil have made the landowners discontented with "their comfortable homes and to long for the social life of the city." The farm is now "an investment and is to be tested by its capacities for income production." The interests and purposes of those who now occupy the farms "are distinct from those who preceded them." And it is probable that "the result will soon be an entirely new adjustment of social, political, and economic life."

Mr. Ross is of opinion that the removals from the country to the city were twice as numerous between 1890 and 1898 as in the previous decade, and that this rate of removal has more than doubled within the past five years. The results in the country are seen in the decayed condition of the churches and church organizations, in educational conditions, and in the rural home itself, which is "now a tenement of a few rooms situated on a corner of the farm or else a few rooms in the rear of the great mansion devoted to the use of the tenant and his family."

This "agrarian revolution" is spreading rapidly throughout the Mississippi Valley, and it is not easy to forecast what its ultimate consequences will be.

TENNYSON AND THE TENNYSON CENTENARY— A FRENCH VIEW.

THE poetry of Tennyson has always appealed to French readers; and it was natural that they should desire to join in the homage paid to the great laureate at the celebration of his centenary. As an earnest of this desire M. Firmin Roz contributes to the *Revue des Deux Mondes* a critical essay on Tennyson's works, in the opening sentence of which he refers to their author as the poet "to whom England has given the greatest glory and the greatest love." A further characterization is: "Truly the national poet of Victorian England." In the early stage of his poetic career M. Roz observes there is a certain analogy between Tennyson and Victor Hugo; but the former, much more than his French contemporary, "ever sought, in those themes which he found satisfied the exigencies of his artistic feelings, an education of his sensibility itself, an augmentation of that mysterious privilege which gives to the poet the power to interpret life, to embrace its manifold manifestations, to detect and disengage its secret beauty, its hidden sense, its invisible essence."

While delighting in reconstructing the legends of mythology,—as witness his "Enone," "The Hesperides," "The Sirens," "The Lotos-Eaters," "Amphion," etc.,—Tennyson was not less successful in treating themes from the Middle Ages and the Orient; and here M. Roz detects the influence, on the one hand, of Sir Walter Scott and, on the other, of Thomas Moore and Southey. But the ballads "The Lady of Shalott," "Lady Clara Vere de Vere," and "Recollections of the Thousand and One Nights" have already "the personal accent of Tennyson, a certain profound resonance of sentiment, and the mark of an elegant imagination and a rich and noble taste." Later Tennyson surpassed his masters; and Wordsworth himself paid him this tribute: "Mr. Tennyson, I have tried all my life to write a pastoral like your 'Dora' and have not succeeded." Of the appearance of "In Memoriam," M. Roz says:

After a silence of ten years Tennyson reappeared transfigured; he at once took first rank among English poets. . . . At an age when a young "intellectual" would have become obsessed by a philosophy or by an idea Tennyson had been attracted by a soul. This affection was for him a great consolation. His friend lost, his support removed, his model became invisible.

But the faithfulness of the poet enabled him to conquer death. He shut before this robber the gates of his memory. . . . Death interrupted nothing. It transformed and it achieved. It made of a noble *entente* between two beings an absolute communion, a mystic fusion. Henry Arthur Hallam survived in Alfred Tennyson, who has enriched his soul with that of his friend.

M. Roz, after tracing the progress of the poet in his conflict with the great grief which threatened to overwhelm him, and of his victorious issue therefrom, remarks:

It is in "In Memoriam" that one finds expressed for the first time the moral and religious thought. Of what importance is anything in this world without an absolute faith in the immortality of the soul and of love? The whole of life is a series of contradictions to which no significance nor importance attaches if the hopes which are born here are not destined to be realized elsewhere. . . . We see also for the first time the perfect form that the poet had attained. . . . By the contemplation of his grief, by his noble effort to discard all that was unworthy of himself . . . he became, if one may say so, transparent to the divine. In this grand school he brought to his art the secret of beauty, the most simple and at the same time the most touching. He blended to the point of perfection emotions, ideas, words, and rhythms so closely that they seem never to have been distinct and that must remain inseparable.

Tennyson, M. Roz claims, is profoundly human. "Man, his different characters, his divers conditions, his struggles, his labors, and his dreams,—here is the vast domain of Tennyson's poetry." It has been held by some that the poet is incapable of passion. In refutation of this M. Roz cites "Locksley Hall" and "Maud."

As the poet's powers ripened and he came to have a clearer knowledge of himself he began to depict English life and to interpret English sentiments; his work "became more local and at the same time more national." In 1842 his "English Idylls" appeared, and "Enoch Arden" (1864) and his poems in dialect like "The Northern Farmer" served "to establish completely the originality of the laureate."

England is *par excellence* the country of public spirit and national sentiment. The poet laureate, who has to express the tastes, the character, and the genius of his country, has no easy task. But the dignity was never more worthily bestowed nor was the office ever more happily exercised than in Tenny-

son's case. At the head of Tennyson's "official" compositions M. Roz places the homage of the new laureate "To the Queen," prefixed to the 1851 edition of the poet's works. The "Ode On the Death of the Duke of Wellington" remains "the most noble poem to which the office of laureate ever gave birth." And "A Welcome to Alexandra,"—the present Queen of England,—was another felicitous product of the laureateship.

The "Idylls of the King," the "great design of the poet" extending over a period of fifty-five years, "embraces all his poetic activity"; it represents "his greatest effort" and remains "the most ample of his realiza-

tions." The subject "seems to have been made for him." In noticing the plays of Tennyson it is interesting to learn from M. Roz that Irving once said that "Becket" was one of the three greatest successes under his direction of the Lyceum Theater.

It was at the age of eighty-one that Tennyson, when one day on the waters of the Solent, composed the poem which was to be his swan song, "Crossing the Bar," the song which all England was repeating after it had been heard at the ceremony when "amid a pomp magnificent and touching" the dead laureate's remains were laid to rest in the great English Walhalla, Westminster Abbey.

OUR HOMELESS DIPLOMATS ABROAD.

MARK TWAIN, discoursing in his inimitable manner on the subject of diplomatic pay and clothes, once remarked:

It has been a long time now since we needed to blush for our representatives abroad. . . . We send men of distinction, cultivation, character,—our ablest, our choicest, our best. Then we cripple their efficiency through the meagerness of their pay. . . . English ambassadors pay no house rent; they live in palaces owned by England. Our representatives pay house rent out of their salaries. . . . Good houses, properly furnished, in European capitals, are not to be had at small figures. Consequently, our foreign representatives have been accustomed to live in garrets,—sometimes on the roof. . . . How could they adequately return the hospitalities shown them? It was impossible. . . . Still they did the best they could with their limited purse. In return for champagne they furnished lemonade; in return for liquors they furnished condensed milk . . . in return for the fairy wilderness of sumptuous decorations they draped the stove with the American flag. . . . Is this an exaggeration? It can hardly be called that.

Never was the scathing satire of our great humorist more justifiably bestowed. A decade has passed, and nothing has been done,—that is to say, on the western side of the Atlantic. In London a society has been formed for the purpose of agitating the question of government ownership of our diplomatic and consular buildings abroad. And now, in the *North American Review*, we have an article from the pen of a former naval attaché, Captain F. M. Barber, the very first paragraph of which shows that the words of the Twain extract cited above might almost be taken *au sérieux* and *ad literatim*. It says:

Although the annual Congressional Public Buildings bill is continually increasing, it is evident from numerous indications that the United States Government will soon adopt the policy of owning its diplomatic and consular buildings abroad, and the time is not far distant when traveling Americans will no longer be mortified at the sight of the United States Embassy or Legation being located on a single floor in an apartment-house or office building, with a tin shield over the door far inferior in appearance to that of many a butcher or baker in the vicinity.

Captain Barber cannot be said to speak without full knowledge of his subject; for he has been naval attaché at Tokio, Peking, Berlin, Rome, and Vienna. He does not attach much importance to the question of the ability or inability of the American representative to entertain foreigners; but what should concern Americans, he considers, is "the fact that while in Washington we have official buildings superior to those of any other country for the transaction of business, abroad we occupy quarters neither creditable to a first-class nation nor large enough for the purpose. We recognize at home that every Senator and Member and every leading official should have a large, airy, well-equipped office; but we fail to see that in foreign capitals we ought to take pride in showing that these same ideas are most conducive to the satisfactory discharge of public affairs even there."

It is with embassies as it is with private houses,—as the years go by the sums paid in annual rentals aggregate an amount which would have purchased the buildings over and over again; and still we have the

buildings yet to buy. Captain Barber makes some very practical suggestions. He would not have us "follow blindly in the footsteps of European nations and by erecting buildings similar to theirs repeat their defects." Further, while "poor nations like Japan may wisely buy and alter old buildings," America, destined by its geographical position alone to become "the first nation in the world," should "start with a clean slate." He proposes:

First, to send a commission of architects abroad to study the local conditions in each capital of the world; to buy land,—a whole block,—in any healthy quarter, whether fashionable or not, for fashion will follow the flag; plan the embassy and consulate-general on a corner lot, with offices on one street and the ambassadorial residence on the other, with a tower at the point, from the top of which the national flag may float on proper occasions, instead of being stuck out of a window like that of a ship in distress. Having an entrance on each street, an arriving and a departing crowd, no matter how large, can be handled with facility. Two interior wings would be required for archives, library, visitors' reading-room, garage, etc., and ample space even beyond this should be allowed for future expansion.

Captain Barber further suggests that when the buildings are erected they should

be equipped with "a complete staff of well-paid janitors, elevator men, messengers, chauffeurs," etc.; and that for this purpose United States colored men would be most uniformly satisfactory, inasmuch as "they are typically American in appearance, they are loyal, and they have an intuitive faculty for learning foreign languages by ear."

The objections to the proposed location of embassies, etc., are (1) their exposure to mob attack and (2) the accessibility of the ambassador out of office hours to persistent Americans who insist on seeing him whether he wishes to be seen or not. The first, it is thought, "the progress of civilization and the business advantages would counterbalance." The second objection is a really serious one. There are certain people who seem to "think they own the embassy." Captain Barber cites the case of some ladies who, wishing to travel before visiting Paris, sent all their heavy baggage to the embassy direct from the steamer and were very wroth on their arrival to find that it had been sent to the custom-house. Captain Barber would have the embassy "equipped with minute printed instructions about matters of courtesy."

HOW CHINA ADMINISTERS HER FOREIGN AFFAIRS.

IT is difficult for Western peoples to realize the startling character of the changes in governmental affairs and administration that have taken place in China within the last half century. For thousands of years foreign nations were regarded by the denizens of the "Flowery Kingdom" as mere boundary tribes in a state of revolt against the Emperor of China, who was their lawful ruler. China was the world,—*t'ien-hia*, "all that is under heaven." If foreign countries sent embassies to the Chinese court with gifts, such gifts were styled *kung*, or tribute. In the six departments of government, with the "Board of Heaven" or "Board of Civil Office" at their head, no provision whatever was made for foreign affairs, for the simple reason that, as stated above, China was the only nation recognized as such by the Chinese. But the world moves, even in China; and in January, 1861, an imperial edict ordered the formation of a new bureau, the *Tsungli Yamên*, to administer China's for-

eign affairs. In the spring of the same year the diplomatic representatives of France and Great Britain took up their residence in a part of Peking, since known as "Legation Street." In 1901 the *Tsungli Yamên*, hitherto a mere bureau or commission, was constituted a regular ministry or department, known as the *Waiwu Pu*, or the Ministry of Foreign Affairs. In the last quarterly issue, July, of the *American Journal of International Law* Mr. Weiching W. Yen describes the operations of the new ministry, which takes precedence over the other six departments of state. It appears that in the *Waiwu Pu*, as now organized, there are four bureaus and an office corresponding to that of the chief clerk of the Department of State in the United States.

The Bureau of Harmonious Intercourse has charge of treaties, memorials to the throne from the ministry and from envoys abroad, the appointment of envoys and their staffs, the arrangement of audiences to foreign ministers, the bestowal of decorations, promotions in the min-

istry, and local international questions in Peking. A second bureau devotes its attention to questions arising from the engagement of foreign advisers, professors, etc., the emigration of Chinese laborers, the sending of students abroad, etc. Then there is the Bureau of Accounts and Disbursements, and, lastly, the Bureau of Miscellaneous Affairs (such as boundary questions, foreign travelers, missionary work, etc.).

The principal officers of the Waiwu Pu consist of a controller-general (an imperial prince), two presidents, two vice-presidents, two deputy vice-presidents, and two councillors. The two presidents correspond roughly to the secretary and under-secretary of state, the vice-presidents to the assistant secretaries of state, while the deputies and the councillors may be compared to confidential secretaries and the solicitors of the department of state. The controller-general directs the general policy, and is consulted only on important questions.

Two days a week are set aside by the Waiwu Pu for the receipt of visits from foreign representatives; but a large proportion of the communications with the latter is by means of notes (*chao-huis*). The controller-general of the Waiwu Pu ever since its establishment has been Prince Ch'ing, who was the senior member of the Tsungli Yamèn.

China's foreign affairs are administered "much the same as those of other nations, by the Waiwu Pu at home and by legations abroad." The Chinese diplomatic service dates from 1867; and it is interesting to Americans to recall that to an American minister in Peking, Mr. Anson Burlingame, is properly due the credit of initiating it. Resident envoys extraordinary and ministers plenipotentiary were first appointed by China in 1875, the number being limited to two,—one to the United States, Spain, and Peru, and the other to Great Britain. Ministers were frequently accredited to more than one government. At the present time, "with the exception of the minister at Washington, who is also accredited to Mexico, Cuba, and Peru, and that at Paris, who has *chargés* in Madrid and Lisbon, the Chinese representatives no longer perform the duties of pluralists. The protection of Chinese subjects in Central and South American countries has been intrusted to American diplomatic and consular officials." A school for the training of diplomats has been established at Peking.

But, as Mr. Yen observes, "the distinctive feature of China's administration of foreign affairs is found not abroad, but at home."

By the treaties which she concluded with the Powers she has consented to their practice of the principle of extra-territoriality within her

dominions. That is to say, she has surrendered her right of jurisdiction over the person and to a certain extent over the property of foreigners upon her land and waters. . . . A part of Section II of the Chefoo convention reads: "British subjects who may commit any crime in China shall be tried and punished by the Consul, or any other public functionary authorized thereto, according to the laws of Great Britain."

The international settlement of Shanghai "is for practical purposes under the control and rule of the Consular Body and the Municipal Council, a body of nine men (seven British, one American, and one German) elected annually by the foreign taxpayers of Shanghai." Here the foreigners number but about 11,000 in a total population of half a million. In settlements like this China has no control whatever over foreigners; and "even over her own subjects her control must be exercised under the supervision of a foreign official." China granted this principle of extra-territoriality without being aware of the difficulties that would be involved in its execution; and in the interior of the country, "hundreds of miles from the nearest consulate or foreign community, it works with peculiar hardship on the officials and the people."

Removed from all fear of the law and caring little or nothing for the good opinion of his neighbors, the foreigner is often tempted to behave in a manner that he would not dare to do elsewhere. Minor offenses have to be overlooked by his victims, and in serious crimes the most local authorities can do is to dispatch him promptly under an escort of soldiers to his nearest consul, who, after all the expense and trouble taken to transport the prisoner, may not punish him. Sometimes the indignation of the populace gets beyond control, resulting in an application of lynch law. . . . It is not entirely without cause therefore that foreigners are not welcomed in the interior either as residents or as travelers.

Recognizing that the management of foreign affairs in China is its most difficult work, the government proposes to appoint commissioners of foreign affairs for each province.

In recent treaties with Great Britain, the United States, and Japan, those countries agreed to relinquish their extra-territorial rights when they shall be satisfied that the state of Chinese laws and their administration warrant them in so doing. With the abolition of the practice of the principle of extra-territoriality much more friendly relations will exist between the Chinese and the foreigners.

FINANCE AND BUSINESS.

NOTES ON APPLIED ECONOMICS OF THE MONTH.

LOANED TO HOME BUILDERS, \$195,000,000.

LAST month a gardener down on Staten Island, whom we will call Kelly, paid over \$13.50 to a certain loan association with the feeling that it was about his best friend on earth.

All he had owned a few months before was \$100 cash, with two \$200 lots that he had managed to pay for on the installment plan out of his \$50 a month wages. And here he was now, in a fine new house built with the aid of \$1300 that the society had loaned him.

The money had been put up without delay; it was costing him only 6 per cent., with the fees for title and so on smaller than usual. And it had been spent more wisely than Kelly could have spent it. The society's real estate committee, on which is a practical builder, not only had inspected Kelly's home with the view of determining whether he was a good risk or not but had gone over the building at three stages of progress and had held up the payments to the contractor until every specification had been made good.

Lest all this should seem too philanthropic to be true, the association will tell you that it has never had to foreclose on any mortgage held by a regular worker like Kelly. When a man knows that every monthly payment is not only for interest but for part of the principal of his mortgage as well, and that these payments in eleven years and a few months will earn him the home for good and all, he will keep his payments up to the last extremity.

Hence, the society is able to declare a profit of 6 per cent. net to its members who put their savings into it. Its small expenses are more than covered by the fines levied on members who withdraw before the full period of subscription to their stock has expired.

We lay stress on Kelly's case because it is typical. In the single State of New Jersey last year there were nearly 40,000 borrowers of sums averaging not much more

from just such associations. There were about twice as many in Ohio and two and a half times as many in Pennsylvania.

Yet the building and loan association idea is very narrow, geographically. Societies of these three States alone have nearly one-half of the total membership in "local" associations for the United States,—1,920,257.

Even learned Senators in Washington recently showed unfamiliarity with the distinction between such associations and loan companies in general, particularly the "national" kind. A good definition was threshed out in the discussion over what companies should be exempted from the burden of the new corporation tax,—“domestic building and loan associations . . . operated for the mutual benefit of their members.”

LITTLE SAVINGS OF \$184,000,000.

ON the 14th of last month the newspapers reported the beginning of a move among the bankers highly educational to every one who has managed to save money, or wants to. The big Bankers' Association of America indorsed unanimously a plan to make savings departments in State banks and in trust companies the real thing,—to safeguard the wage-earner's money by something more than a separate sign and brass railing.

To invest the dollars that come in over the savings counter as if they “belonged to another bank entirely,” to put them only into the highest grade of securities, including farm loans and mortgages on homes,—such were the rules formulated by Pierre Jay, the very able former Commissioner of Banking in Massachusetts. Until the State bankers and trust company managers adopt such precautions universally the many people who lack means to distinguish between good and bad bank management and who live in one of the thirty-odd States that lack proper laws for exclusively savings banks will continue to use such well-adapted means for saving as is offered by the correct type of building and loan association.

Last year the weekly and monthly dues

paid into such societies, mostly from wage earners, \$1 or \$5 or \$10 at a time, amounted to \$184,666,218.

So well was this sum cared for that, although the year saw the wholesale closing of factories and reduction of office forces, there were entire States in which not a single association closed its doors or suspended operations,—such as Ohio, with 645 “locals” and nearly \$140,000,000 assets; New York, with 235 and nearly \$40,000,000, and California, with 107 societies controlling \$20,000,000.

To examine the work of a typical association, one that has helped more than a thousand small home builders during the last twenty years, will show very clearly the three things that make a building and loan association safe,—the restrictions of its loans to its own neighborhood; the restrictions of its expenses and its real estate taken over under foreclosure; and the fitness of its managers for their work.

First of all, the company in question never lends money more than twenty miles away from its office, although the laws of its State allow loans as far off as fifty miles. Consequently the company's balance sheet as reported to the State Commissioner of Banking shows that it spent in salaries, etc., but little more than 1 per cent. of the total amount handled last year. Moreover, the real estate held is only about one-tenth of the total assets, and represents property foreclosed more than ten years ago, now worth a great deal more than was paid for it.

Finally, the managers of the company are prominent in the real estate and civic life of their community. It follows upon the semi-philanthropic nature of their association that it pays them to look into the petty details of every dollar loaned, whether the borrower be the most humble mechanic or clerk. Every one of these applicants is “rising.” He is going to own a home and pay taxes, and be a good citizen. To know him personally, to become his friend, is worth time to a “prominent man” that the latter could not afford for such a small transaction if it were on behalf of a national bank or other proposition organized for the personal profit of the insiders.

Thus the society has handled and to a large extent paid back already more than \$10,000,000 of savings without complaint from the saver.

It is easy to satisfy oneself on the three points of safety before picking out any particular association as a help to regular saving.

Being co-operative, the association must admit any member to any meeting. If one is at a distance, some acquaintance who is a member and on the spot can be found who will attend a meeting, who will learn whether it has a real estate committee which examines every application on the spot and reports to it in detail, and whether the board of directors come to meetings and show interest and discrimination.

From a little gossip with the managers of some rival society one can soon learn whether the concern's assets are swelled with poor risks at 8 or 9 per cent. or whether the real estate held had depreciated; whether its managers have been accused of granting loans to their relatives and friends unduly.

Local societies may be called “homestead associations,” as in Louisiana, or “co-operative banks,” as in Massachusetts,—but all observe the principle that money must be loaned only on such homes as can be inspected by the officers and directors of the society personally in their own close neighborhood. The latest figures, as presented by C. S. Celarius, secretary of the national league of “local” associations, show an increase of 81,138 in membership over the year before and of \$52,667,307 in assets.

States.	No. of associations.	Total member- ship.	Total assets.
1 Pennsylvania	1,423	389,446	\$158,510,745
2 Ohio	645	327,662	139,340,424
3 New Jersey	447	156,306	73,518,234
4 Illinois	517	108,734	54,313,466
5 Massachusetts	137	120,575	51,339,903
6 New York	235	108,200	39,162,602
7 Indiana	342	120,078	34,131,416
8 California	107	31,142	19,635,667
9 Michigan	58	39,182	15,056,493
10 Nebraska	68	42,683	13,415,822
11 Louisiana	53	27,363	11,523,654
12 Missouri	123	21,698	9,300,661
13 North Carolina	87	26,276	6,021,421
14 Kansas	55	17,660	5,779,198
15 Wisconsin	50	12,515	4,730,694
16 Minnesota	67	11,022	4,559,027
17 Iowa	48	15,300	4,390,443
18 West Virginia	38	11,230	4,113,884
19 Maine	35	9,429	3,869,142
20 Tennessee	15	5,215	2,728,303
21 New Hampshire	17	7,250	1,978,127
22 Connecticut	13	2,891	1,898,830
23 North Dakota	9	2,600	1,496,822
Other States	1,010	305,800	123,359,775
	5,599	1,920,257	\$784,175,753

GOOD BANKING IN PENNSYLVANIA.

THE tests of good banking are very pleasantly applied to the figures for Pennsylvania national banks, presented to the association of that State the early part of last month. The gross amount accumulated by the thrifty Dutch and Quaker settlers, aided by industries like steel and resources like

coal and gas, is larger than in any other State, except New York. But it is not the grand total, but the conservative handling of it, that interests students in every State.

Every national banker able to make profits has this choice regarding them,—to let them remain “undivided” in a surplus fund for the protection of his depositors or to pay them out in dividends to himself and the other stockholders.

Now Pennsylvania national banks are remarkable for their profits still undivided. They have \$126 in such profits or surplus for each \$100 of nominal capital. New York banks have only \$119; Massachusetts, \$91; Illinois, \$83; Ohio, \$61,—and it is fair to compare these States with Pennsylvania.

A further and better test, however, is to compare the flat amount that the bank stockholder has actually up at stake as compared to the amount which the depositor shoves in at the “receiving” window. Here Pennsylvania shows up in the strongest fashion. Its national banks have accepted as deposits, against each average dollar of stockholders’ investment, only \$3.81. The figure for Ohio is \$3.98; for Massachusetts, \$4.14; for New York, \$5.50, and for Illinois, \$5.94.

Commenting on these figures the *United States Investor* remarks that an Illinois national bank which went into liquidation would have to shrink only 14.4 per cent. as to assets before hurting its depositors, whereas a Pennsylvania bank would shrink as to assets more than 21 per cent. before need arose to scale down the claims of depositors.

There are only thirteen savings banks in Pennsylvania. The work of encouraging thrift, however, is better done than in many other States, because there are 1400 building and loan associations.

A RAILROAD AT AUCTION.

THE first time in a dozen years that an American railroad of any importance has been sold at auction was midnight of August 31, when the Chicago Great Western was “knocked down” for \$12,000,000.

Recalling the fears of eighteen months ago that America might be entering another period like the middle '90s, when half the great railroads of the country were in receivership, this one property seems but a slight hostage to misfortune.

Two classes of Great Western stockholders were assessed \$15 a share. The only

other big systems now in trouble are the Seaboard, which is to escape without any assessment, and the Wheeling & Lake Erie, Wabash Pittsburg Terminal, and other Gould properties not widely owned by the public.

The buyers of the Great Western were a syndicate represented by J. P. Morgan & Co. They cut the stock down from \$117,000,000 to a little over \$86,000,000. Ahead of this they put \$18,500,000 of first mortgage 4 per cent. bonds. On these the road can earn interest immediately.

It will have a hard fight, however, to do much more. It operates 840 miles, reaching from Chicago to Oelwein, Iowa. Thence three branches take it to St. Paul and Minneapolis, to Omaha and to Kansas City.

Thus among its competitors stand some of the oldest and richest and best built American railroads,—the Burlington, North Western, St. Paul. Each of these rivals is allied with the big Eastern and Western systems which feed it,—the North Western, for instance, with the Vanderbilt lines on the east and the Union Pacific system on the west.

The first thing is to make a railroad out of the Great Western physically. The task has been committed to one of the most eminent railway physicians, Samuel L. Felton, who has served on more than fifteen different systems and rehabilitated several wrecks.

THE CENTRAL BANK AND THE CITIZEN.

ONE may be a good plain storekeeper, or livery stable proprietor, or truck farmer,—one need not be a financier, whatever that is,—to see what is behind the central bank idea swung before the public, about the middle of last month, by President Taft, President Reynolds, of the American Bankers’ Association, and Representative Vreeland, of the House Committee on Banking and Currency.

The question of a central bank is really the question: “Is Democracy a failure?”

President Taft touched the note when he remarked on the 14th that Senator Aldrich, a supporter of the plan, had been regarded “with deep suspicion.”

A certain class of people are afraid,—afraid to give any body of men as much power as the managers of a central bank must have,—afraid, apparently, that no Americans can be found honest enough to do what is done for England, France, Germany, Austria, Italy, Spain, and Denmark by the public-

spirited committees who represent the people as against the banks, the borrowers as against the lenders, through a bank of banks which holds the precious metals on which bank notes are based and regulates the amount of these notes by raising and lowering interest rate according to the real needs of the country.

Wherefor in Europe the panic rate for money rarely reaches 7 per cent.; while in the United States only two years ago it got to 200.

Every civilized nation but ours can find men, out of politics and out of its "Wall Street," to turn a financial balance wheel for the stability of the nation. Must one believe that America is to remain financially unbalanced because all Americans will be rascals if they get the chance? If one reads the works of purely academic students like Muhleman, Conant, Joseph French Johnson it would appear rather that America has not yet found a workable plan.

Nobody envies the framers of the bill which Mr. Taft is "expecting before the end of this administration." It must provide machinery that can be run to satisfy every section. The cotton and tobacco planters down South must find it easy to "carry their crops," as must the corn and wheat farmers of the West. Then there is the much-abused Wall Street. At a time like May of last year the supply of ready funds there which made the daring Pennsylvania loan a big success reassured the whole world as to the credit and soundness of American enterprises.

The bill, therefore, must provide a series of checks. President Reynolds proposed that the stockholders of the central bank receive a small Government guarantee (of perhaps 4 per cent.). In return the bank should share with the Government all profits above that amount and should submit to the supervision of a board named by the President of the United States and the Treasury Department, and confirmed by the Senate.

However, such a bank probably would earn little, being forbidden to accept deposits from private sources. The vaults would hold only Government money and the redeposits of other national banks,—the same that now go so largely to New York, Chicago, and St. Louis, to the encouragement of speculation at those "reserve centers."

In fact, the present system has already made a "money power" more dangerous

than any held by the European central banks, because it is irresponsible to anybody except the private stockholders. By the present re-deposit machinery a large part of "country" bank reserves filters into the control of the two great groups of interrelating banks of New York City, known as the "Morgan banks" and "Standard Oil banks."

Go to your own home town and see. If it is in a typical section of the South and West you will find that it has sent some larger bank a re-deposit, a portion of its reserves, on which it receives perhaps 2 per cent. To make an average profit of 4 per cent. or 5 per cent. to its depositors the rest of the money has got to bring 7 per cent. or 8 per cent., and this is what the home borrower pays,—the farmer, and the livery stable man, and the storekeeper.

THE CENTRAL BANK AND THE BANKERS.

THE applause by the assembled bankers at Chicago for the speaker who urged a central bank sounds very different from the outcry which downed the second Bank of the United States. Those who shouted loudest seventy-five years ago were the State bankers themselves. They had been granting too much credit with too little capital and too little real money. The central bank was required by its character to make them bring their business within control. So dozens of them had to quit business.

In 1828 there was not a single local bank left in Kentucky, Mississippi, and Alabama. Their former customers were going to branches of the United States Bank, or else were bankrupt from the stoppage of the credit they had been undeservedly granted. Whereupon the United States Bank foreclosed on so many firms, hotels, stores, and residences, and attained to such intense unpopularity in consequence that any Congressman who hadn't voted against the extension of its charter (which expired in 1836) would have been lucky to escape from the folks back home with his life.

Now, whatever the misdeeds of this bank, and they were many, it did furnish a needed regulation of the wildcat institutions that were willing to lend anybody money, on the security of anything, under the name of "patriotism" and "the development of American resources." And careful students traced the immediate cause of the panic in 1837 very directly to the absence of the United States Bank.

To-day American "country" banking is surprisingly sound in conduct, considering the provocations of our antiquated law. It artificially makes bank note issues more profitable to the banker when times are dull and interest rates low than in prosperity.

The present law works backward. Two of the greatest increases in history in the volume of bank notes issued by American national banks have been in the twelve months following the panics of 1893 and 1907, when trade was at its ebb. Just as too much water means overflow, unnecessary bank notes mean

frantic employers were offering 3 per cent. premiums for cash to pay off their hands?

WARNINGS OF PROSPERITY.

GOOD fortune for a nation carries its caution. The August iron production of more than a million and a half tons was greater than any month in history, except May, July, August, October of 1907. But those four months introduced the sharpest slump in stocks and bonds for fifteen years. There are so many automobiles in use, we hear, and tires are wearing out so rapidly that dividends are at last to be paid on the common stock of the big rubber company. This is just the way it was in 1906.

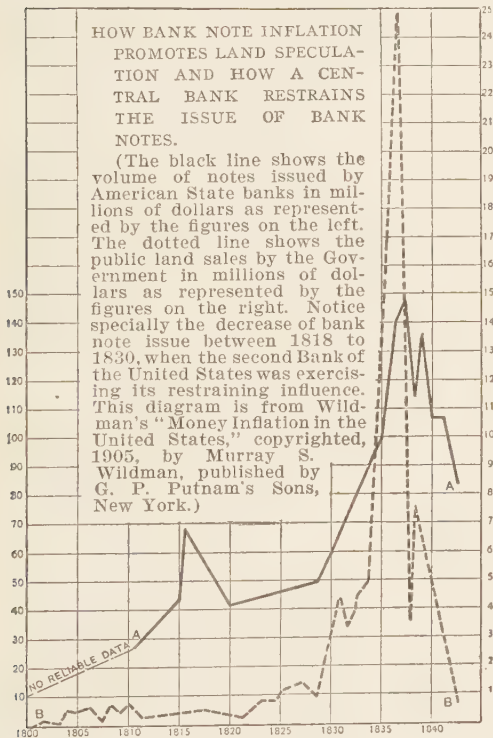
The country is very far from the indiscriminating distrust of all rich men or the currency tieup and scare of two years ago. Perhaps we are not, as Mr. James J. Hill feared in his speech of September 15, to become "a wheat importing nation," perhaps the farmers will learn to make their restricted acreage produce more, after the intensive methods of the European peasant.

Still, exports for August were \$10,700,000 less than the year before. For the first eight months of this year they have been \$93,000,000 less.

While manufacture and trade are growing the security markets have set an estimate on that growth still ahead of the performance. Money has been lying idle in one institution after another and has gone into bonds paying 3 to 4 per cent. for lack of any better opening. In New York City alone the State banks and trust companies increased their investments and loans during the eighteen months ending the middle of August by \$657,000,000.

Now the fountain of this professional buying has somewhat dried up. And there are still several big railroad loans to be made that will take a lot of absorbing. Western banks have been calling back their money, so that the bank surplus in New York was cut in half the second week of last month.

It is sensible to avoid stocks, however promising, that are known to be easily wire-pulled at a time like this. The business man's money is safest in the bonds of the companies that earn a comfortable margin over their interest needs and which pay 5 per cent. or more for some well demonstrated reason other than insecurity.



speculation, whether it is in corner lots or cattle or Wall Street stocks.

Thus our financially defenseless land, oversupplied on August 1, 1908, with its \$627,316,659, was staggering a year later under the weight of \$667,947,187. Incidentally the stock market in the latter month reached a new "high level," and conservative financial papers were warning that "many leading stocks are selling above their investment value."

Was it really only two years ago that

THE DEVELOPMENT OF A NOVELIST.

THE RAPID RISE OF H. G. WELLS.

BY G. W. HARRIS.

NO less an authority on literary values than Mr. Edward Garnett, one of the foremost of living English critics, recently pointed out regretfully that "Americans are as much inclined to underrate Mr. H. G. Wells as to overrate Mrs. Humphry Ward." Mr. Wells' imagination, he continued, "has been fired by the topsy-turvy spectacle of man's powers over nature being indefinitely increased by science, while his powers over himself have been diminished by the irruption of incalculable, new forces. What needs putting under the laws of science, in short, is modern man himself, and Mr. Wells is the only English novelist who, with large and democratic sympathies, has perceived that a 'civilization' that is guided by the jerry-built ideals of an ignorant democracy and of plutocratic cunning is running counter to the laws of social health."

The fact, if it be a fact, that Mr. Wells has hardly yet attained to his rightful place in the estimation of American readers,—that his real powers are only beginning to be recognized,—is largely the fault of Mr. Wells himself; for, under stress of the necessity of "making a certain income," he was for a time too prolific,—he crowded a willing brain too hard,—and his numerous publications displayed almost as great a variety of merit and demerit as of subject. In such fast and furious invention as he felt compelled to follow it was inevitable that some of his work should show itself to be hasty, careless and ephemeral. The surprising thing is that in the great mass of writing he has turned out in the last fourteen years there is so much that is not only new but really fine and fresh and strong. The progress of Mr. Wells provides a most interesting study in the development of a novelist; indeed, that development in his case is perhaps the most curious in the recent annals of English letters.

Herbert George Wells was born in Bromley, Kent, on September 21, 1866, the son of Joseph Wells, a professional cricketer and a tradesman in a small and unprofitable business. The boy was apprenticed to the father's business in his early youth, and up to the time he was eighteen, he says, received no education. Then he educated himself. Like the hero in his latest novel (as is probably the case with most great novels, "Tono-Bungay" must contain a myriad of autobiographic touches, incidents, and details), he soon conceived a great liking for science. He studied hard in his off hours and secured a science scholarship at South Kensington. Upon graduation from the Royal College of Science, with first-class honors in biology, he became a teacher and an editor of *The Educational Times*. He had never been robust, and before long his health gave out altogether under the strain of the two professions. After a severe sickness he

took to literature and began writing articles on chance subjects for *The Pall Mall Gazette*. A group of these, republished in 1895 under the title of "Select Conversations with an Uncle," made up his first book,—excepting, I believe, a textbook in biology. In 1895 appeared also "The Time Machine,"—and discriminating readers began to tell one another that here was a new writer whose output was worth watching.

Since that Mr. Wells has published some two dozen volumes, including scientific romances, satiric fantasies and fantastic ironies, strange stories galore, horrible, blood-curdling visions, grotesque yet strangely moving prophecies of "the times yet to be," sociological and socialistic essays, and, finally, absorbingly interesting novels of contemporary English life.

His earlier work in the grotesque, the fantastic, the bizarre promptly brought him the undeserved epithet of "the English Jules Verne,"—undeserved because, preposterously supernatural as his wildest flights of imagination and his chimerical creations may have seemed, he always builded on a foundation of scientific truth. He possessed an unfailing fund of knowledge, and his peculiar union of the scientific and literary temperaments gave him a rare advantage. The law of evolution and a clear conception of man's place in nature were the great basic facts on which he worked. He saw all things afresh, divested of old labels, formulas, preconceptions. He took nothing as a matter of course. He became an explorer; wrought out and fought out new trails of his own. His visions of the future, his awful warnings and hopeful anticipations, are as far from the pseudo-scientific yarns of Jules Verne as this earth is from the Dog Star.

From the first he took the forward look toward life and touched science to utter prophecy and warning criticism. And through it all he has approached steadily nearer to the present time, nearer to the life of humanity in this world here and now. "The Time Machine" (1895) pictured the slow decay of the world in the twilight and night of time, some thirty millions of years in the future. In "When the Sleeper Wakes" (1899) our author's rapid retreat from those vast future eons had brought him to a period only a single century hence. These romances, and the many strange fictions he printed between their dates of publication,— "The Stolen Bacillus and Other Stories," (1895); "The Wonderful Visit" (1895), that gay and charming account of an angel's sojourn in a small Surrey village; "The Island of Dr. Moreau" (1896), an unwholesome excursion into the ultra-horrible; "The Platter Story and Others" (1897); "The Invisible Man" (1897); "The War of the Worlds" (1898),—all these disclosed their author's wit, fancy, imagination, instinct for story telling, and keen sense of

style (a remarkable thing about his work was the rapid development of a style of ease and admirable precision); and in "The Wheels of Chance" (1896) he had given us a delightful tale without any appearance of the supernatural,—a sparkling transformation of a commonplace dry goods clerk's cycling tour in southern England into a charmingly Quixotic romance. But it was not until he had published a dozen books that he produced in "Love and Mr. Lewisham" (1900) his first novel in the true meaning of that term.

Here indeed was a new departure. An amazing fertility of invention, to be sure, had gone into the making of the scientific romances, but the "imagination" they displayed was largely an extremely skillful use of science, hardly belonging in the province of literature and having almost nothing to do with the art of novel writing. "Love and Mr. Lewisham" showed unexpected and very genuine abilities in the analysis of human character. It was a story of the everyday life of humble London folk, a simple record of the ambitious resolutions of youth and the interference of life,—of how love, in the person of a little typewriter girl, upset all Mr. Lewisham's plans for a great career and sent him to fight in the common ranks in the struggle for life; and such a story, so thoroughly well done, so full of kindly humor, so true to life and so appreciative of life, was worth more than all the scientific fantasies in the world.

But Mr. Wells was not yet through with scientific phantasmagoria, with peering into the future and with prophecy. This novel was followed by "The First Men in the Moon" (1901), a shrewd satire on this era of specialization; "The Sea Lady" (1902), a successor to "The Wonderful Visit"; "Twelve Stories and a Dream" (1903); "The Food of the Gods" (1904); "In the Days of the Comet" (1906); "The War in the Air" (1908), and such sociological and socialist pronouncements as "Anticipations" (1901); "Mankind in the Making" (1903); "A Modern Utopia" (1905); "New Worlds for Old: An Account of Socialism" (1908); "First and Last Things: A Confession of Faith" (1908), and, after a flying visit to these shores, "The Future in America" (1906). While he was doing these things, however, he was also at work in his new field. His second novel, "Kipps: The Story of a Simple Soul" (1905), was a masterly portrayal of English life, with all its snobbery, pretense, and conventionality as seen through the eyes of one of a despised class who suddenly found himself, like Christopher Sly, raised above his "proper station." The sharp satire of it showed its author still the reformer as deeply interested as ever in social questions; yet the tale was a rare combination of humor and pathos, was both amusing and tender, "blood-tinctured, of a veined humanity." After ten years of incessant labor Mr. Wells had produced a masterpiece of fiction.

Finally, early in the present year, came "Tono-Bungay," a graphically realistic epic of a sordid patent-medicine king, his amazing florescence into a "Napoleon of finance," the burst-



HERBERT GEORGE WELLS.

ing of his bubble of wealth and power, and his ignominious end,—again a book displaying humor, imagination, a lucid style, a gift of insight into the shams and absurdities of present-day society, an electrifying irony; perhaps an uninspiring book in its gray and somber realism, filled with futile questions, yet powerful in appeal and not so futile in this that it makes its readers think.

In the best of his work Mr. Wells has always realized his aim to establish a new proportion, to show the world under a new aspect. In "Kipps" and "Tono-Bungay" he has achieved his early ambition to become a novelist of the lower middle class in England; and more, he has analyzed with brilliance and force the irrationality,—the lack of real structural ideas,—of the modern commercialized social organism. He is not always the purest of artists, and his analysis is not always free from bias, but his criticisms of this topsy-turvydom of pragmatism and folly are fundamentally and everlastingly true.

In this land of opportunity it is no uncommon thing for a man to climb unaided from "the bottom of the ladder" to high position; but in England it requires vastly greater pluck, endurance, and force of character for one of the lower middle class to overcome class restrictions, thwart the iron hand of traditional, conventional custom, educate himself out of the groove in which he was born, and achieve the front rank,—whether in literature, or science, or the affairs of state. The deserts of Mr. H. G. Wells are as large as is his promise of producing many another book that will fulfill Dr. Johnson's test and "help us either to enjoy life or to endure it."

THE NEW BOOKS.

HUDSON-FULTON LITERATURE.

It was to be expected that the joint celebration in New York of the achievements of Hudson and Fulton would be the occasion of the writing of a great many magazine articles and some books. Several volumes apropos of Hudson's voyages and the significance of his explorations have already been noticed in these pages.

Now that we are celebrating the three hundredth anniversary of Henry Hudson's discovery of the river that bears his name, it is fitting that the exploits of that daring navigator should be reviewed in the light of historical investigation. Trustworthy materials for a life of Hudson are far from abundant, but Mr. Thomas A. Janvier has condensed in a single small vol-

contains many of Fulton's hitherto unpublished letters, drawings, and pictures. Miss Sutcliffe is a great-granddaughter of Fulton.

A book whose publication at this time may

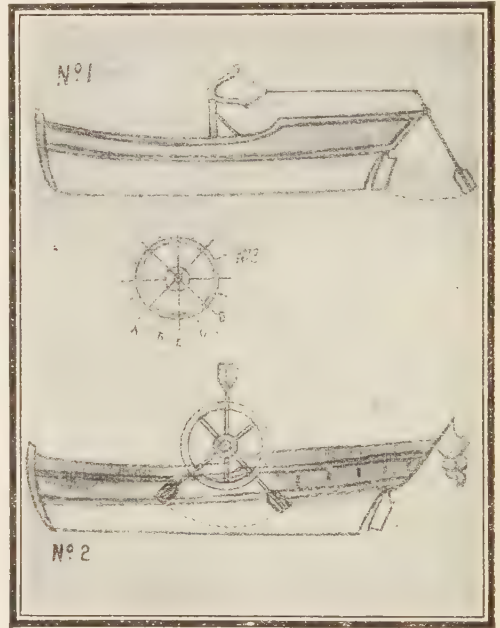


ROBERT FULTON.

(From a miniature reproduced in "Robert Fulton and the Clermont.")

ume¹ all the essential facts recorded by the explorer's authoritative biographers, and has appended to the narrative a reprint of a newly discovered contemporary account of the trial of the mutineers by whom Hudson was abandoned to his death.

In her sprightly story, "Robert Fulton and the Clermont,"² Miss Alice Crary Sutcliffe has attempted to give an authoritative account of the early experiments of Fulton more than to recount the triumph with which we are all familiar. The volume, which is well illustrated,



FULTON'S FIRST PLAN FOR STEAM NAVIGATION.

(Made in 1793 and now first published in "Robert Fulton and the Clermont.")

have been suggested by the Hudson-Fulton celebration is "The Picturesque Hudson,"³ written and illustrated by Clifton Johnson. The Hudson is one of the few American rivers that have literary associations, and the picturesque features of the "Rhine of America" have long been the theme of the guide-books. Special photographs of river scenes have been made by Mr. Johnson for this book, and the characteristic scenic features of the river from its mouth to its headwaters are passed in review.

A new and useful volume on the New York of the Hudson period is Miss Esther Singleton's "Dutch New York."⁴ Miss Singleton will be remembered as the compiler and editor of a number of volumes on different historical periods. This volume on the American metropolis during the period of Dutch dominion seems to us particularly well done. The life of the original Dutch settlers is vividly reconstructed, and the Dutchman of Nieuw Amsterdam is made to appear a true Dutchman transplanted from the old country, as well as a rather more serious

¹ Henry Hudson. By Thomas A. Janvier. Harpers. 148 pp., ill. 75 cents.

² Robert Fulton and the Clermont. By Alice Crary Sutcliffe. Century. 367 pp., ill. \$1.20.

³ The Picturesque Hudson. By Clifton Johnson. Macmillan. 227 pp., ill. \$1.25.

⁴ Dutch New York. By Esther Singleton. Dodd, Mead & Co. 360 pp., ill.

and dignified individual than the chronicles of Washington Irving and others would have us believe. Such topics as orchards, gardens, houses, streets, costumes, furniture, housekeeping, servants, education, religion, courtship and marriage, doctors, taverns, sports, festivals, merchants and trade,—these indicate the range of subjects considered in the fourteen chapters.

In a finely illustrated and handsomely bound volume entitled "The New New York"¹ Prof. John C. Van Dyke and the artist, Mr. Joseph Pennell, have collaborated to give us "the larger aspect of New York, showing the life and energy of its people projected upon the background of its commerce." Professor Van Dyke's text is that of a man who thoroughly knows and loves his subject. As for the Pennell illustrations, they are beyond praise as an accurate interpretation of the life and architecture of the city. Many of the illustrations are in color.

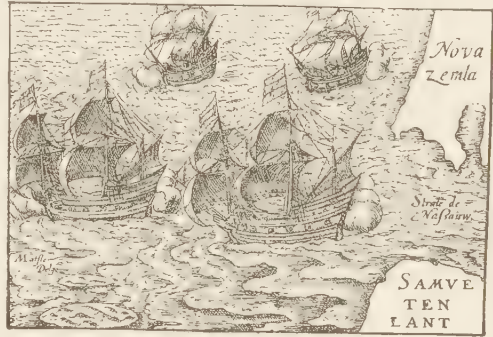
TALES OF ICE AND SEA.

While the world is acclaiming the polar exploits of Peary, Cook, and Shackleton, we should not lose sight of the fact that during the past decade much progress has been made in the field of Arctic discovery by explorers of modest equipment who have had other ends in view than the search for either the North or the South Pole. The work of what was known as the Anglo-American Polar Expedition of 1906-07 is described in detail in a volume entitled "Conquering the Arctic Ice,"² recently completed by Ejnar Mikkelsen, the young Danish explorer, who in company with Ernest de Koven Lefvingwell, of Illinois, headed the expedition. Although their ship, the *Duchess of Bedford*, was lost in the ice, these young men succeeded in mapping the northern coast of Alaska and acquired much useful knowledge of that region, although their "farthest North" was only the seventy-second parallel, which of course does not entitle them to rank with the polar discoverers. Mr. Lefvingwell is now at Point Barrow, but a recent dispatch states that he was unsuccessful in a recent attempt to push farther north. Nevertheless, the knowledge already gained of that hitherto virtually unknown coast is doubtless worth all that it has cost.

A volume of essays³ by James R. Thurstfield, the English writer on naval topics, is interesting to American readers chiefly because of the somewhat unexpected tribute paid by the author to our earliest American naval hero, Paul Jones. Almost without exception English writers, when they have alluded to Jones at all, have characterized him as a pirate, or at best a naval adventurer. It is therefore with some surprise that we come upon the statement in Mr. Thurstfield's estimate that the title of Paul Jones to be regarded as the father of the American navy "is at once unimpeachable and fraught with the loftiest and most enduring inspiration.

An absorbing account of the voyage of the Russian Baltic fleet from St. Petersburg to its defeat and destruction in the battle of the Sea of Japan is now published in the form of a

diary by Commander Wladimir Semenoff. This volume, under the title "Rasplata"⁴ (The Reckoning), has been well rendered into English, although the translator is anonymous. Captain Semenoff claims nothing for his writing except that it is the diary of an eyewitness presented in the form of a narrative. His chapters are exceedingly vivid and the reader is strongly impressed before he has read many chapters with the fatal and unprecedented weakness and unpreparedness of the Russian fleet in its eastward voyage. The volume ends with an entry dated May 25 (1905) "ninety miles off Shanghai." A petty officer asked the commander what were further orders, "Where are we going now?" And the commander replied: "To our reckon-



DUTCH SHIPS OF HUDSON'S TIME.

(From a contemporary print, reproduced in Janvier's "Henry Hudson.")

ing." The next day occurred the battle of the Sea of Japan.

BOOKS ABOUT CHINA.

Very vivid and entertaining are Mrs. Conger's "Letters from China,"⁵ which have just been brought out in book form. Mrs. Conger, as wife of the American Minister, lived in China for nine years, beginning in 1895. She was on intimate relations with the late Empress Dowager and learned the Chinese point of view as thoroughly, perhaps, as any Western woman. Her letters to relatives in the United States, which make up the text of this book, include a running account of the siege of Peking during the Boxer troubles in the year 1900.

Another book on China and the Chinese, from a more vital American point of view, although inevitably not written in Mrs. Conger's picturesque style, is Dr. Mary Roberts Coolidge's "Chinese Immigration,"⁶ which forms one of the American Public Problems series. This is a study of American-Chinese relations, particularly since the Geary law in 1892. There are, however, introductory and supplementary chapters on the Chinaman at home and the probable effect of exclusion. Dr. Coolidge was formerly associate professor of sociology at Stanford University.

¹ The New New York. By John C. Van Dyke. Macmillan. 425 pp. Ill. by Joseph Pennell. \$4.

² Conquering the Arctic Ice. By Ejnar Mikkelsen. Philadelphia: George W. Jacobs & Co. 470 pp., ill.

³ Nelson and Other Naval Studies. By James R. Thurstfield. Dutton. 384 pp., ill. \$4.

⁴ Rasplata. By Wladimir Semenoff. E. P. Dutton & Co. 489 pp. \$3.50.

⁵ Letters from China. By Sarah Pike Conger. A. C. McClurg & Co. 392 pp., ill. \$2.75.

⁶ Chinese Immigration. By Mary Roberts Coolidge. Henry Holt & Co. 531 pp. \$1.50.

There is a great deal that is new and informing about the family and social life of the Chinese people in the studies of John Stuart Thomson, which he has published under the general title "The Chinese."¹ The writer beyond a doubt knows his China from long years of intimate association. The volume is illustrated from photographs taken by the author himself.

TRAVEL AND DESCRIPTION.

A volume packed full of useful information and illustrated by portraits, views, maps, and charts, all on Chile,² has been recently brought out by the International Bureau of the American Republics. This work cannot fail to be very useful as a reference work to students and those who have a commercial interest in the Southern continent.

Mr. J. Keir Hardie's impressions and suggestions of India have been published in book form,³ chiefly, the author himself admits, for the purpose of correcting some misstatements made in the English press concerning 'his public statements of Indian conditions. Mr Hardie believes that while the Hindus are particularly loyal, "repression will only intensify their determination to secure self-government."

A lively story of adventure, with a good deal of useful historical and political description and comment, is Mr. Albert Sonnichsen's "Confessions of a Macedonian Bandit."⁴ Mr. Sonnichsen went to Macedonia as a member of the revolutionary committee and saw many things in the turbulent Balkan country which could not possibly have been seen by an outsider. The book is illustrated from photographs, most of which were taken by the author himself.

BIOGRAPHY.

The most important book of the year in the field of biography is the late Professor Shaler's life as written by himself and supplemented with a memoir furnished by Mrs. Shaler.⁵ The autobiographical portion, which makes up one-half of the volume, covers only the first twenty-one years of Professor Shaler's life. It is much to be regretted that death prevented the completion of this intensely interesting autobiography, but in the hands of Mrs. Shaler the lack has been supplied as fully as possible. The reader is impressed by the remarkable versatility of Professor Shaler, as well as his extraordinary mental alertness and perennial interest in whatever affected mankind. Professor Shaler was a geologist throughout his mature life, beginning at Harvard as a pupil of Agassiz and reaching great eminence in his chosen science. Yet many of his letters give little or no suggestion of what must have been the mastering pursuit of his life, and, indeed, his published writings show that in a literary career he might have been quite as successful as in his lifelong work as a scientist and specialist.

The letters and journals of Dr. Howe,⁶ edited by his daughter, Laura E. Richards, are completed in the second volume, covering a period of forty-two years and telling the story of Dr. Howe's labors for the blind, the deaf, the insane, the feeble-minded, the prisoner, and the captive. This volume, like its predecessor, has been compiled from Dr. Howe's journals and letters, with only so much narrative as seemed necessary to supply the missing links. Both volumes have been annotated by F. B. Sanborn.

MUNICIPAL GOVERNMENT.

Professor Goodnow, of Columbia University, has written a work which covers in a single volume⁷ the entire field of municipal government not only in this country but abroad. To do this the author was obliged to study the historical development of city institutions in western Europe, and he gives his readers the results of his studies, with a general survey of the distinguishing characteristics of modern social life in great cities. Those students and general readers who are familiar with Professor Goodnow's book on "City Government in the United States" will find the present more comprehensive treatment of the subject extremely interesting as well as practically helpful.

In view of the increasing interest in the subject of municipal street-cleaning it seems strange that no comprehensive treatise on the subject has heretofore appeared. Noticing this lack Dr. George A. Soper, of New York, has brought together some notes of his own experience and observation⁸ which should prove of value to officials in American cities who have this important matter in charge. Dr. Soper made a three months' visit to Europe two years ago and there enjoyed opportunities for discussing the question of cleaning streets with many municipal officials. The cities that he visited included London, Paris, and Berlin. By way of comparison, Dr. Soper has added to the account of foreign methods of street-cleaning a chapter on the work of the New York Street-Cleaning Department.

MILITARY HYGIENE.

As summer military encampments and mimic war games, such as the one described in this number of the REVIEW OF REVIEWS, are becoming more frequent from year to year, the practical usefulness of such a book as Major Ashburn's "Elements of Military Hygiene"⁹ becomes more and more evident. Major Ashburn's work has the approval of the Surgeon-General of the United States Army and the indorsement of the Adjutant-General of Massachusetts, besides that of a number of other officers, both of the regular army and of the national guard. It is primarily for the use of line officers who have considerable influence in the acceptance of recruits as well as in the management of the men in the barracks, in camp, and on the march.

¹ The Chinese. By J. S. Thomson. Bobbs-Merrill Company. 441 pp., ill. \$2.50.

² Chile: A Handbook. Compiled by the International Bureau of the American Republics, Washington, D. C. 236 pp., ill. \$1.

³ India: Impressions and Suggestions. By J. Keir Hardie. New York: B. W. Huebsch. 126 pp. \$1.

⁴ Confessions of a Macedonian Bandit. By Albert Sonnichsen. Duffield & Co. 268 pp., ill. \$1.50.

⁵ The Autobiography of Nathan Southgate Shaler. Houghton Mifflin Company. 481 pp., ill. \$4.

⁶ The Letters and Journals of Samuel Gridley Howe. Vol. II. Edited by Laura E. Richards. Boston: Dana Estes & Co. 611 pp., por. \$3.

⁷ Municipal Government. By Frank J. Goodnow, LL.D. Century Company. 401 pp. \$3.

⁸ Modern Methods of Street Cleaning. By George A. Soper, Ph.D. New York: Engineering News Publishing Company. 201 pp., ill. \$3.

⁹ The Elements of Military Hygiene. By P. M. Ashburn. Houghton Mifflin Company. 314 pp. \$2.

The American Review of Reviews.

EDITED BY ALBERT SHAW.

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KNUD RASMUSSEN, DANISH AUTHORITY ON GREENLAND.

The controversy over Dr. Cook's claim that he reached the North Pole has grown steadily in interest, not only with American and European newspaper readers but also with men of special scientific attainments who can speak with knowledge upon the precise questions involved. The highest authority upon the Eskimos and their life, and also one of the greatest authorities upon travel in the polar regions, is Mr. Knud Rasmussen, a Danish scientist and man of letters, who has spent years in different parts of Greenland, and whose studies of the life and folklore of the northern tribes can hardly be praised too highly. Rasmussen is about to arrive at Copenhagen from Greenland, and he will be in a position to assist the Danish University in its work of passing upon the records and claims of Dr. Cook. Meanwhile, there appeared in the press of October 21 a remarkable preliminary report sent from North Greenland by Rasmussen on September 25 and addressed to his wife in Copenhagen. This report, based in the main upon inquiries among the Eskimo people, confirms all that Dr. Cook has said, and may justly be taken by the public as testimony of high importance. It will outweigh the statements of those who are attacking Dr. Cook's truthfulness, until the final report is made. Rasmussen is the son of a Danish clergyman who was for twenty years a missionary in Greenland, and the mother of Rasmussen was one of the Christianized Eskimos of South Greenland. Rasmussen was the head of the Danish literary expedition of June, 1902, which made a long sojourn in Greenland with results so important that its work was made official by the Danish Government. A part of Rasmussen's writing was translated in England and published last year in a volume entitled "The People of the Polar North," with many illustrations by Count Harald Moltke, a Danish officer and artist who was a member of the expedition. The portrait shown above is from one of Moltke's drawings.

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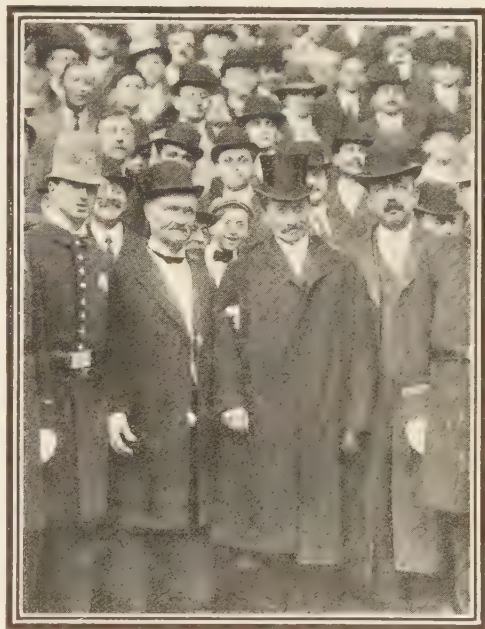
THE PROGRESS OF THE WORLD.

*Dr. Cook
and His
Ordeal.*

So many and so great are the incidental discomforts of fame that only bold men of good digestion and strong nerves should ever try to make their way along the thorny path of ambition toward the goal of pre-eminence and popular note. Dr. Cook seems to have the rare qualities that fit a man for the ordeal of publicity. He has been ridiculed and aspersed, has been denounced as liar and fake and fraud; yet he goes calmly on accepting municipal honors,—as, for example, from the Board of Aldermen of New York City last month,—and filling lucrative lecture engagements with ready industry and unflinching fluency. Dr. Cook made his Arctic journey and sojourn upon his own responsibility, without involving the credit of any government, scientific body, or association. He says that he was so fortunate in his sledge journey as to have reached the highest possible point of latitude. Many people believe him and some do not. The circumstances are such that it would be hard to prove absolutely that Dr. Cook did not reach the Pole, even if he were guilty of misstatement or the victim of erroneous calculations. But no man of his education and experience would care to make so hazardous and protracted a journey if he were not desirous of obtaining full credit for his achievements,—and every explorer of his grade of intelligence knows full well that to obtain such credit he must bring back with him certain records and proof that the scientific world would recognize as tending to establish his claim.

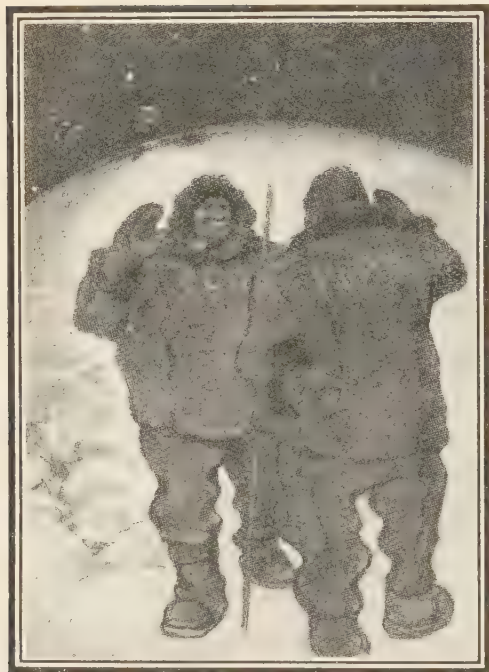
*The Scientists
Waiting
for Proofs.*

The scientific world was entirely ready to welcome Dr. Cook, and it has been, and is yet, thoroughly ready to pass upon all his records and proofs, and to examine them from the standpoint of a presumption that Dr. Cook is not a roman-



Dr. Cook. Bird S. Coler.
DR. COOK IN FRONT OF THE NEW YORK CITY HALL
LAST MONTH.

cer, but a real explorer and a man of the scientific spirit. Dr. Cook was accepted at Copenhagen upon the face of his statements, with the distinct understanding that he could and would justify the unstinted kindness and honor conferred upon him by submitting to the University of Copenhagen, and the scientific men associated with it, all the data that would be needed to satisfy them of the truth of his claims. Having decided in the first instance upon this mode of procedure Dr. Cook seems to think that the attacks upon him do not create a reason for changing his plans. He declines, therefore, to submit his proofs to a tribunal to be improvised in the United States. The Danes, meanwhile, are



AN OFFER OF FRIENDLY SERVICE.

DR. COOK: "Mr. Peary, may I offer my services as guide? I am a tourist conductor to the North Pole."

From *Jugend* (Munich).

not only preparing to go thoroughly into Dr. Cook's records and data but have also been making some inquiries in Greenland on their own account, by way of getting at certain relevant information. It may be safely predicted that when the European and American men of science get through with Dr. Cook's claim that will have settled the matter to the satisfaction of people of average sense and intelligence. Since, however, Dr. Cook's

claims and statements are now seriously questioned by a good many men of scientific knowledge, it would seem to be well for Dr. Cook's reputation as a man of good taste and self-respect to expedite the examination of his records, and to discourage official and public honors until after the University of Copenhagen has pronounced its verdict.

Mr. Peary
and His
Attitude.

The work of Commander Peary has been carried on for many years in such a way as to add to our knowledge of the unexplored parts of the world in which we live; and by dint of persistence and the accumulated experience of a lifetime Peary has at last shown how to carry northern travel to the extreme point. His work as an explorer has been brilliant and successful, and to the minds of thoughtful people it loses nothing of its value whether or not it should turn out that Dr. Cook had actually been so fortunate as to have reached the Pole a year sooner. It is possible to understand the state of mind which has led Peary into the series of ill-advised utterances attributed to him by the newspapers. But none the less it is unfortunate for him that he has attached so much importance to the claim of Dr. Cook. There have been a good many recent attempts to reach the North Pole, any one of which might, under fortunate conditions, have proved successful. Contributing to the world's scientific knowledge is what is of importance, and that Peary has done. The mere question who arrived first at a certain point happens in this case to be of much less consequence. Commander Peary is entitled to all his laurels, quite regardless of the question whether Dr. Cook is an honest explorer or a vulgar hoax. Peary should leave Cook to fight his own battles for



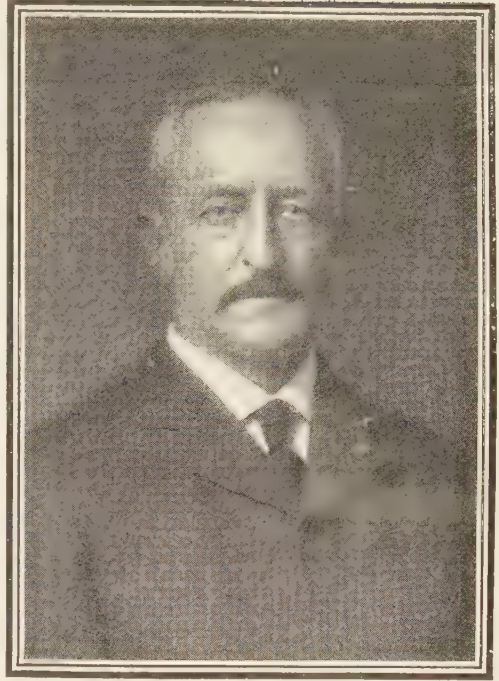
THE NEW COOK "PERSONALLY CONDUCTED" TOUR.

(The cartoonist of *Paris Figaro*, Albert Guillaume, suggests to Dr. Cook that after he has convinced the world that he really reached the North Pole he organize a series of regular excursions to the Farthest North.)

the confidence of the public, and try to accept a little more cheerfully the hearty acclaim that every one has been ready to bestow.

*The
Cook-Perary
Controversy.*

Both Dr. Cook and Commander Peary reached the United States on their return from the Arctic regions just as we were going to press with the last month's issue of this magazine. Up to that time the interest of the civilized world had centered about the achievement of reaching the Pole, and the descriptions (extraordinarily similar in general character) given by the two men themselves of the boreal regions. Commander Peary's reiterated assertion, however, that Dr. Cook had never reached the North Pole, his formal statement of what he regards as evidence of his contention, and the replies and arguments of Dr. Cook's friends soon shifted the interest and made the controversy between the two explorers the main fact of the news of October. Following up his assertion first made through the cables from Indian Harbor, Labrador, on September 6 that Dr. Cook never reached the highest north, Commander Peary, soon after his arrival in the United States, submitted to General Thomas Hub-



From the Co-Operative Press.

GENERAL THOMAS HUBBARD.

(The New York lawyer and capitalist and president of the Peary Arctic Club, who has been advising Commander Peary in the publication of his charges against Dr. Cook.)

bard, a New York lawyer and president of the Peary Arctic Club, a full statement of the facts which, in his judgment, uphold his accusation against Dr. Cook. This statement was made public on October 13.



HOW UNCLE SAM MIGHT USE THE NORTH POLE.

TAFT (the world pilot): "Now, boys, all together. The world's axis is ours. We can turn the old globe as we will."

From *Kladderadatsch* (Berlin).

*The Peary
Charges and
"Proofs."* It consisted of the detailed story of Dr. Cook's two Eskimo companions, as reported by members

of the Peary party, in which the natives are made to say that the Cook party went only "two sleeps" (two days' journey) north from Cape Hubbard, never leaving the land ice, and that they then returned with full sledges south and west over another route than that described by Dr. Cook. The story is accompanied by the comments of Commander Peary. Several days later there appeared in a New York newspaper a sworn statement from Edward N. Barrill, the guide who accompanied Dr. Cook on his expedition to Mount McKinley in the summer of 1906. In this narration Barrill declares that Dr. Cook never reached the top of Mount McKinley, but ordered him, Barrill, to falsify his daily record so as to make it appear that the summit had actually been attained.

It is on the evidence of the two Eskimos, with their direct statement about the North Pole expedition, and the declaration of Dr. Cook's Mount McKinley guide as contributory evidence of the explorer's "unreliable" character, that Peary bases his accusations.

*Dr.
Cook's
Replies.*

In reply Dr. Cook, disclaiming any enmity to Commander Peary, asserts that his Eskimo guides had been instructed by him not to reveal to Mr. Peary his movements north of Cape Hubbard, since he, Dr. Cook, knew of Peary's enmity to him, and desired, naturally enough, to make known to the world himself the news of his achievement. Regarding the doubts as to his ascent of Mount McKinley, Dr. Cook expresses surprise at the Barrill statement and insists that, in view of what he declares is the truth and the fact that up to the present time the guide has supported his claim, the present statement was obtained from Barrill by "undue influence." Perhaps the most valuable evidence in support of Dr. Cook's claim up to the time of our going to press was the testimony of Knud Rasmussen, the Danish Arctic scientist and leading authority on northern Greenland. This is found in a report sent from Julianstaab, Greenland, late in September, and re-

ceived by his wife at Copenhagen on October 20. Rasmussen was the only white man who saw Dr. Cook start and the only man with a real knowledge of the Eskimo language (he is part Eskimo himself) who had been in actual contact with the natives in the region from which Dr. Cook took his guides. He declares his absolute faith in the explorer. He did not talk with the guides, but with many natives who knew them and their story. "Whenever Cook's statements are compared with the statements of his companions they appear to be quite truthful. . . . To sum up, the Eskimos believe that Cook reached the goal and that he, during the voyage, showed great nerve and energy."

*Preparing
the Cook
Case.*

Several expeditions also are under way to ascend Mount McKinley and confirm, if possible, Dr. Cook's claim. Apparently aroused by the persistency and gravity of the charges against him, Dr. Cook on October 18 announced that he would discontinue his lectures within a few days and devote himself to the preparation of the official statement of his case, which would go first to the University of Copenhagen and then be submitted to such a tribunal in the United States as would satisfy the scientists and the general public. Whether or not Dr. Cook actually attained the summit of Mount McKinley on his expedition in 1906, it should not be forgotten that the exploration of the Mount McKinley region by that expedition, which is a matter of scientifically recorded fact, showed Dr. Cook to be, beyond question, an intrepid traveler and explorer.

*Wilbur Wright's
New York
Flight.*

Wilbur Wright, who has not sought personal fame, bears his own recent accession of vast popularity with equanimity and without self-consciousness. Undoubtedly the most interesting event of the Hudson-Fulton celebration in New York was the magnificent flight of twenty miles accomplished by Wilbur Wright in his aeroplane on October 4. Starting from Governors Island, in New York Harbor, Mr. Wright steered a course up the Hudson River to Grant's Tomb, a distance of 10 miles, and circling over the great fleet of war vessels anchored in the river, returned safely to his starting point. The hundreds of jackies clustered on the battleships cheered lustily as the "man-bird" passed over them. Thousands of citizens who were so fortunate



Photograph by Paul Thompson, N. Y.

WILBUR WRIGHT AT GOVERNORS ISLAND.

(Showing the genial half-smile of the modest aviator.)



Photograph by Brown Bros., N. Y.

WILBUR WRIGHT FLYING OVER THE PARADE GROUND ON GOVERNORS ISLAND NEW YORK.

as to see the flight watched the machine with intense interest, and the whistles of ferryboats, factories, and tugs shrieked out their noisy homage to the "King of the Air,"—as Wright has been called. It was truly a triumphal flight and one of the finest yet made in America. The feat derived additional interest during the Hudson-Fulton celebration from the fact that the course taken was up the same historic river that had borne the tiny *Half Moon* on its voyage of discovery, and had also been the scene of the *Clermont's* more recent achievement. The entire distance of 20 miles was accomplished in about thirty-three minutes,—at an average speed of almost 43 miles an hour. On the afternoon of the day of this flight Mr. Wright's machine met with an accident to the motor, which put an end to his trials in New York for the time being. He immediately afterward transferred the scene of his operations to College Park, Maryland, where he was under contract to teach some officers of the Signal Corps how to operate the aeroplane he has sold to the Government. Here Mr. Wright had a very successful season, making on several days as many as five separate flights, both with and without his pupils. On October 9 he made another record by negotiating a closed course of 500 meters in 58.3-5 seconds, and he predicted a future speed for his aerial craft of from 60 to 70 miles an hour.

Lambert
Circles the
Eiffel Tower.

The great spread of interest in flying and flying machines is shown by the number of "aviation meets" springing up in various coun-

tries. At Blackpool and Doncaster, in England, at Berlin and Johannisthal, in Germany, and at Juvisy, in France, noted aviators have recently assembled and aerial feats have been accomplished which a few months before would have made records and astounded the world. During the Berlin aviation week Hubert Latham made a daring flight clear across Berlin, from the Tempelhofer Field, where he had been making flights, to the Johannisthal aviation meeting, a distance of about twelve miles, which he made in twenty-four minutes. It was in connection with the Juvisy meet that Count de Lambert made his sensational flight to Paris and around the Eiffel Tower, returning safely to the Juvisy field. Lambert, in a Wright aeroplane, started up from the grounds on the afternoon of October 18, presumably to make a circuit of the course. To the astonishment of the spectators, however, he cleared the bounds of the field and disappeared from view. To only a few persons had he confided his real purpose. Half an hour later the people of Paris were startled to see the birdlike machine soaring high up over the city, and before they had recovered from their astonishment Lambert had circled the Eiffel Tower and was well on his way back to Juvisy. The news of his feat had preceded him by telephone and he received an enthusiastic ovation. He had made the thirty-mile trip in fifty minutes. The Eiffel Tower is 984 feet high, and as Lambert claims to have circled 300 feet above it, he must have attained an approximate height of 1300 feet. Orville Wright, who was present at Juvisy at the time, called



Photograph by G. G. Bain, N. Y.

COUNT DE LAMBERT.

Lambert's exploit the finest aeroplane flight yet made. Wright himself at Potsdam on October 2 established a new record for height by rising steadily in his machine for fifteen minutes, attaining an estimated altitude of 1637 feet.

*The
Balloon
Races.*

The balloons have also had their innings during the past month. Half a dozen or more contestants started in the annual balloon races of the Aero Club of St. Louis. They made long and thrilling journeys and landed in widely separated States. The Lahm Cup for the longest flight made in a balloon under the auspices of the Aero Club was finally won by A. Holland Forbes, of New York, and Max Fleischman, of Cincinnati, whose balloon, the *New York*, landed in Richmond, Va., after a trip of 731¼ miles. In the international race for the Gordon Bennett trophy seventeen balloons started from Zurich, Switzerland, on October 3. Mr. Edgar W. Mix, of Ohio, the American entrant, won the prize, having traveled 650 miles and landed in Russian Poland on October 5. Le Blanc, of France, was awarded second prize.

*Four Articles
on Flying
Machines.*

This REVIEW has during the past two years published a number of articles chronicling the progress of aerial navigation. So marvelous has been the very recent advance in this field of human endeavor that we present in this issue four illustrated articles, by competent writers, dealing in an authoritative and comprehensive manner with flying and flying machines. Mr. Stanley Yale Beach, himself a builder of aeroplanes, tells "How an Aeroplane Is Built," explaining the various parts of the machine. Mr. J. Bernard Walker, who, as editor of the *Scientific American*, has studied the subject closely, contributes "The Aeroplane—A Retrospect and a Forecast," reviewing the interesting history of man's attempts to fly and suggesting the functions of the aeroplane of the future. The dirigible balloon,—the "lighter-than-air" type of flying machine and in a measure the rival of the aeroplane,—is explained very thoroughly by two recognized authorities on the subject, Messrs. T. R. MacMechen and Carl Dienstbach, while still another article gives an account of the sensations of flying.

*Gaynor
on the
Pinnacle.*

Judge William J. Gaynor has not borne the ordeal of publicity and controversy with anything like the steadiness of temper and general self-control that Dr. Cook has shown. Mr. Gaynor accepted the Tammany Hall nomination for Mayor at a time when the defeat of Tammany Hall was the one thing to be desired in the municipal affairs of the great city of New York. He expected to be treated with consideration through the campaign, and to be deferred to on all sides as a lifelong reformer and a man whose character and record would suffice as a guaranty of his loftiness of purpose in seeking the Mayoralty. Unfortunately for his pretensions, the situation did not justify his leaving the bench to enter municipal politics as a candidate for office. The real contest, as all well-informed people knew, was for the control of the Board of Estimate and Apportionment, which has everything to do with the raising and spending of the city's money. The Fusion ticket, headed by Mr. Otto T. Bannard, which Judge Gaynor went into the field to oppose, was made up of candidates selected for their especial fitness. For that reason, men claiming a record of disinterested public service, like Judge Gaynor, clearly owed it to themselves and their reputations to support the citizens' ticket as against the Tammany Hall ticket.



Photograph by Brown Bro., N. Y.

Judge Gaynor.

JUDGE GAYNOR ACCEPTING HIS NOMINATION FOR THE NEW YORK MAYORALTY.

*The Price
of a
Nomination.*

Any just reputation that Judge Gaynor had earned in the past for useful service to the community was precisely the measure of the price he paid to Tammany Hall for a nomination which,—if his personal prestige should lead to success at the polls,—would drag into power one of the most objectionable tickets ever offered to the community by this corrupt organization. Judge Gaynor has been known as a man of extreme, if not fanatical, zeal on behalf of certain public causes, and has long been regarded as a man who might make a very popular run for Mayor or Governor. But he understands the situation in New York thoroughly well; and he knows, as every one else does, that Tammany selected him for the sake of keeping its control upon the other offices. Tammany's hope was that Gaynor's popularity would sweep the whole ticket into power. In accepting the nomination under these circumstances Gaynor parts company with a reputation which he had been thought to value. He places himself in the same position, and therefore upon the same level, as his associates upon the Tammany ticket. He subjects himself to a review of his past career and an analysis of his mental and moral qualities that have not been complimentary and that have been met by him with volumes of rather irrelevant

retort and personal attack upon those who have criticised him. He has had no apologies to make for his associates upon the ticket, and has put himself in a position which would tie him close to Murphy,—the Tammany boss,—in case of his election.

*The
Entrance of
Hearst.*

When in the early days of October the enthusiasm for the citizens' ticket had not warmed up much and the success of the Gaynor-Tammany ticket seemed altogether probable, a number of influential people having the welfare of the city at heart went to Mr. William R. Hearst and asked him to run at the head of a third ticket for the Mayoralty. The proposition was to call the Hearst movement the Civic Alliance, and to fill up the column on the official ballot paper under Hearst's name with the candidates who were running on the Fusion ticket. It was believed that a great many people would vote for a ticket headed by Hearst who would not vote for one headed by Mr. Bannard, who is a banker and a regular Republican. Mr. Hearst himself, with his newspapers, had reluctantly declined to support Gaynor on account of the association of Gaynor with Tammany Hall. On the other hand, Hearst did not feel that he could support Bannard, although he was ready enough to support all the rest of the



HON. WILLIAM RANDOLPH HEARST, IN HIS OFFICE.

(From his latest photograph.)

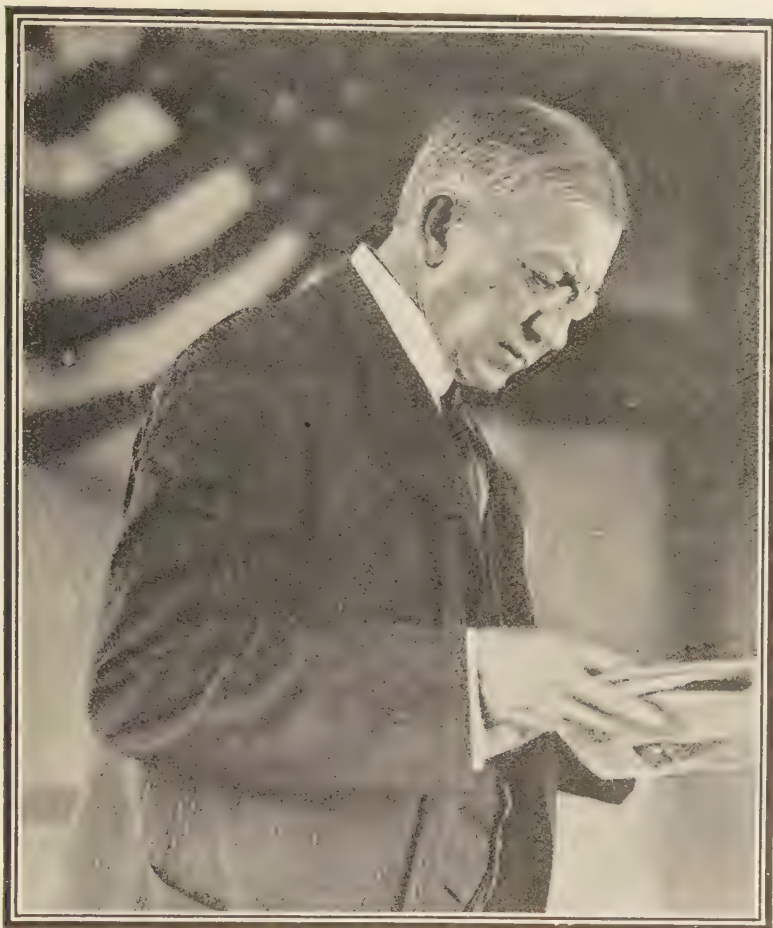
Fusion ticket. He finally yielded to persuasion, accepted an independent nomination, and appeared at a great mass-meeting in Carnegie Hall,—a meeting remarkable for its enthusiasm and for the people who had brought it about and occupied the platform.

A Remarkable Ovation. It was presided over by Prof. Charles Sprague Smith, head of the People's Institute and for many years identified with movements for the educational and civic betterment of the community. The leading speaker was Mr. William M. Ivins, the Republican lawyer who four years ago was the Republican nominee in the three-cornered Mayoralty fight,—Hearst and McClellan being the other candidates. Ivins was sacrificed at that time by conservative voters who were afraid Hearst might be elected and who preferred to vote for McClellan and Tammany. Mr. Ivins is the head of the Charter Commission, has investigated the traction situation in New York, and is the best-informed man in the city upon all phases of municipal

government. His abhorrence of Gaynor is without bounds, and the avowed reason for his support of Hearst is to make more sure the defeat of Tammany. Many clergymen and social reformers were among the sponsors for Mr. Hearst's candidacy this year, and were upon his platform. Entering the campaign with great reluctance Mr. Hearst warmed up to the situation from day to day with a growing prospect that he would poll a large vote. He has become a good speaker, and has found a new following.

*Bannard
and His
Canvass.*

Mr. Bannard, furthermore, has proved an excellent campaigner, showing a spirit of cheery good temper that contrasts agreeably with the irascibility of Judge Gaynor. Mr. Bannard is not merely a successful business man; he has been identified for more than thirty years with the work of the Charity Organization Society and with other phases of social and charitable work, and his knowledge of the conditions of life in New York is extensive. He has never been a seeker for office, but is



Photograph by G. G. Bain, N. Y.

MR. OTTO H. BANNARD, REPUBLICAN AND FUSION CANDIDATE FOR MAYOR.

a public-spirited citizen of highly honorable standing among business men, and especially fitted at the present time to perform the duties of Mayor. He would work in harmony with the other candidates on the ticket, and the success of the Fusion movement this year would give encouragement to the cause of sound and progressive government throughout the entire country. It would mean a real triumph for our popular institutions. And it seems assured.

*Other
Offices to Be
Filled.* Next to the Mayor perhaps the most important office at the present time in the City of New York is that of the Comptroller. The Fusion candidate, Mr. Prendergast, of Brooklyn, has the confidence of good citizens of all parties and would administer the finances of the city with intelligence and thoroughness under conditions much less difficult than those that

the present Comptroller, Mr. Metz, has had to meet, although in many respects Mr. Metz has filled the office with great credit. The candidate for the presidency of the Board of Aldermen, Mr. John Purroy Mitchel, is a young Democrat whom Mayor McClellan selected as a Commissioner of Accounts and whose good work has been like a beacon light in an administration that has averaged rather dark and gloomy. The Fusion candidate for the presidency of the Borough of Manhattan is Mr. George McAneny, whose name is known throughout the country for his long years of devoted work to improve political conditions. Years ago he was associated with the Hon. Carl Schurz in carrying on the work of the National Civil Service Reform League. He has been a director of the Bureau of Municipal Research and president of the City Club. He was in the forefront of the fight that resulted in the re-



Photograph by Brown Bros., N. Y.

William A. Prendergast.

Otto Bannard.

John Purroy Mitchel.

THE THREE LEADING CANDIDATES ON THE NEW YORK CITY FUSION TICKET.

moval of the Tammany president of the Borough of Manhattan upon charges presented to Governor Hughes. Mr. McAneny is an independent Democrat who is enthusiastically supported for this office by the whole Republican organization, as well as by all citizen bodies and reform groups. Both Mr. Hearst and Mr. Bannard have said repeatedly in their campaign speeches that the election of the Mayor is not this year nearly so important as the election of Mr. Prendergast, Mr. Mitchel, Mr. McAneny, and the candidates for the presidency of the other boroughs, all of whom, together with the Mayor and Comptroller, make up the Board of Estimate and Apportionment. If the Fusion ticket should be elected the finances of New York would be well conducted for four years.

knows about New York's financial condition and administration, about the organization of the departments, the making of the budget, and the wastes and leakages of the existing system. The Tammany campaign has been particularly bitter in its attacks upon the Bureau. This, however, is highly agreeable to the experts associated with Dr. Allen, Mr. Bruère, and Mr. Cleveland, because it is a tribute to their efficiency. As a matter of fact, the only thing that has redeemed the McClellan administration has been the great extent to which it has utilized the services of the Bureau. Mr. Metz, the Comptroller, has reorganized the accounting system of his great office under the guidance of the accounting experts of the Bureau, and has shown his good sense and courage in being willing to accept such valuable and disinterested aid. Mr. McClellan personally has been under the deepest obligations from time to time to the Bureau,—although Mr. McClellan is not precisely the kind of politician who frankly acknowledges the help of those who rescue him from the countless scrapes into which a certain indecision of character is always precipitating him.

*Experts in
Municipal
Government.*

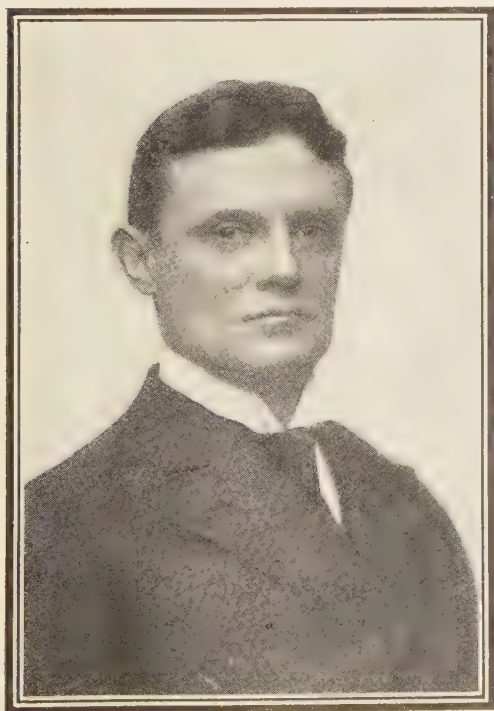
Elsewhere in this number we publish an article on the fundamental situation in New York, by Dr. Allen, of the Bureau of Municipal Research. This Bureau, supported by public-spirited citizens, has investigated conditions in New York until it knows the facts. Its members know more than anybody else

*Progress
in Spite
of All.*

Tammany had the easy opportunity in this campaign to boast of the extent to which its officials had accepted and welcomed the co-operation of the Bureau of Municipal Research. A good deal could have been said quite justly for the Tammany department heads along that line. But nobody seems to have had sense enough to perceive and utilize the chance. The fact is that the forces of civilization are mightily at work in the great American metropolis. Progress is made even with Tammany in office. Tammany officials cannot wholly disregard the demands made by the growing intelligence of the community. The very fact that New York is progressing is what affords the opportunity for carrying out the many reforms and improved methods that are now intelligently demanded. It is because the schools are in a fairly good condition that they might be made so much better. It is because we have a good tenement-house law and the beginnings of a departmental administration of that law that the opportunity is so great for fine social results through the really well-developed work of an efficient tenement-house department. It is because New York has now fairly well paved streets and the survival of



MR. GEORGE M'ANENY.



MR. CHARLES S. WHITMAN.

(The Fusion candidate for District Attorney.)

Waring's street-cleaning system that all such services as those pertaining to the streets could be made still better under a more businesslike direction of finances and work. It is because there is so much merit and vitality in the Department of Health that so much more could readily be accomplished toward the further lessening of tuberculosis and other ills. It is because New York has so remarkably fine a police service that it would seem feasible to correct certain minor evils that affect this service, chiefly through the corrupting influence of Tammany Hall. It is not a revolution that is demanded in the municipal work and conditions of New York but continued progress through a finer and better kind of administration, such as would surely show itself at once if the Fusion ticket were elected.

*The
Making of
Leaders.*

In the turbulent politics of New York City there is always opportunity for new leaders to come forward in American public life. They must



Photograph by Pach Bros., N. Y.

HON. HERBERT PARSONS.

(New York City's Republican leader and a rising man in the progressive wing of the Republican party.)

have courage, honesty, and a wide knowledge of human nature in all sorts of men. It was through this very testing and ordeal that Theodore Roosevelt made his way until he became Governor, Vice-President, and President. George B. McClellan had hoped that he might follow a similar path; and it is stated by his friends that he still thinks that a kindly fate, which has given him many plums thus far in spite of himself, may somehow make him the successor of Hughes at Albany and then the successor of Taft at Washington. The only plausible explanation for Gaynor's entering the municipal scramble and taking the Tammany nomination is the one advanced in private by many of his friends who say that he was looking forward to the next Democratic nomination for the Presidency. Mr. Hearst did not think that this was his year, and he was deeply averse to appearing as a candidate. But having been led forward he has become hopeful of election, and every one knows that it is the Presidency upon which Mr. Hearst and his friends have long fixed their gaze.

Mr. Jerome
to
Retire.

At one time Mr. William Travers Jerome, District Attorney of New York, seemed to have prospects of great political advancement. Mr. Jerome is completing eight years of service as prosecuting officer in the county of New York. It is a very difficult office, has great power and responsibility attached to it, and is constantly bringing its incumbent into national prominence. Mr. Jerome was not accepted by Fusionists or Tammany as a candidate this year, but he was nominated independently for his present office on petition signed by thousands of his friends. After the Fusionists, however, had nominated a brilliant and popular candidate in Judge Charles H. Whitman, who had been much spoken of for the Mayoralty, and when Tammany made a like brilliant and popular choice in naming Mr. George Gordon Battle, it seemed best to Mr. Jerome to withdraw from the race. Some things were expected of him which probably no man could have done. He has, upon the whole, filled the office of District Attorney with great credit.

Republican
Leaders.

It is not only the Democrats who are training leaders in the school of New York City politics, but also the Republicans. Mr. Henry L. Stimson, who served under Roosevelt as United States District Attorney in New York, and who was one of those most prominently named to head the Fusion ticket, seems to be destined to a political career of great distinction. Mr. Herbert Parsons, who is a member of Congress and at the same time chairman of the New York County Republican Committee, is a politician who fights for his convictions with amazing skill, and who begins to count as a rising force in the affairs of the national party. Mr. Whitman has been serving as a municipal judge, is popular and right-minded, and if elected will probably make a great record as District Attorney. There is a great chance in New York City for young politicians of both parties and all parties who will refuse to be dominated by party machines, who will maintain their own freedom and independence and will work for their honest convictions. The great political leaders of the nation in the earlier period came from the rural districts, as a general rule. But the political contests nowadays that develop strong leaders are in the cities rather than in the country, and the municipal arena comes to be a training school for leadership on the national plane.

*Political
Statuary in
New York.*

A rather striking illustration of some of the startling contrasts presented by New York City politics and conditions of life which Dr. Allen depicts so vividly in the article already referred to is furnished by the unique method of "campaigning by statue unveiling" which has rather unexpectedly developed in the municipal campaign of this year. A group of alleged public-spirited gentlemen, presumably with their political affiliations rather closely connected with the existing régime in the greater city, who modestly con-



"THE STATUE OF PURITY" IN LONGACRE SQUARE, NEW YORK CITY.

(One of the features of the present municipal campaign.)

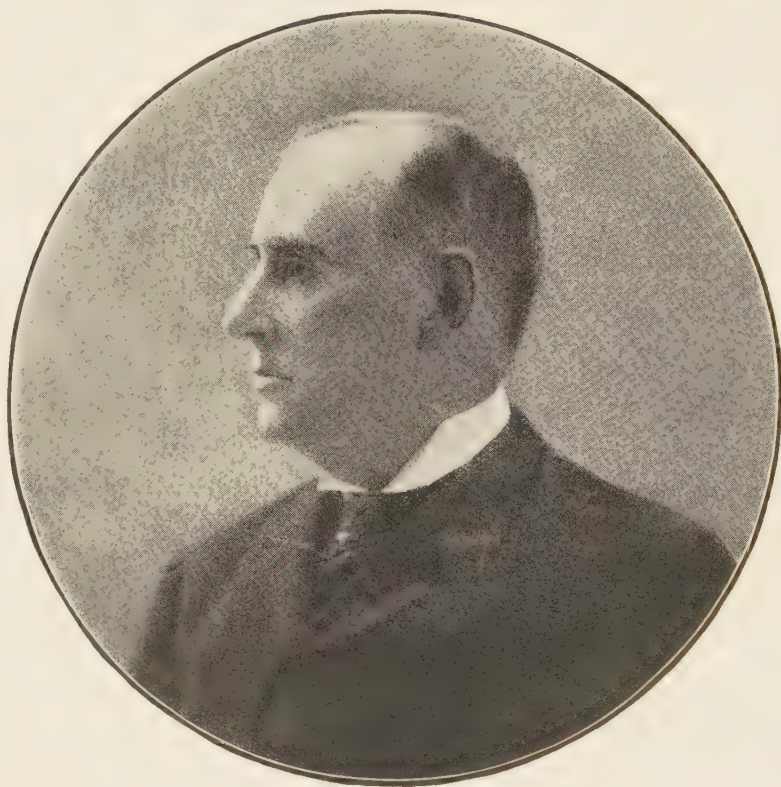


Photograph by Brown Bros., N. Y.

THE MONUMENT TO GIOVANNI VERRAZANO IN BATTERY PARK, NEW YORK.

(Unveiled by the Italian societies of the greater city on October 6.)

ceal their identity under the impressive corporate name of the "Association for New York," were responsible during the first few days following the close of the Hudson-Fulton celebrations for the unveiling of a white plaster statue of a woman, heroic size, in one of the conspicuous squares of the center of the city. The wayfaring man may learn from the statue of the lady, the shield she bears in one hand, the several smug inscriptions, and the immaculate purity of her garb, that she was intended by her creators to stand for the purity of the American metropolis, which, in the belief of the "Association for New York," has been foully slandered by New York's many traducers and particularly by the Fusion and other anti-Tammany forces during the present campaign. This heroic exemplification of New York's purity,



MR. EDWIN HAWLEY, WHO HAS EFFECTED AN IMPORTANT RAILROAD COMBINATION.

however, excited little but derision in the minds of New York citizens, and they were quite fully prepared to accept as a second exhibit in this novel method of campaigning the "reply" statue, which was unveiled several days later in the campaign "Exhibit Museum," conducted by the Committee of One Hundred, and which showed Lady New York as the victim of her real slanderer, the Tammany Tiger.

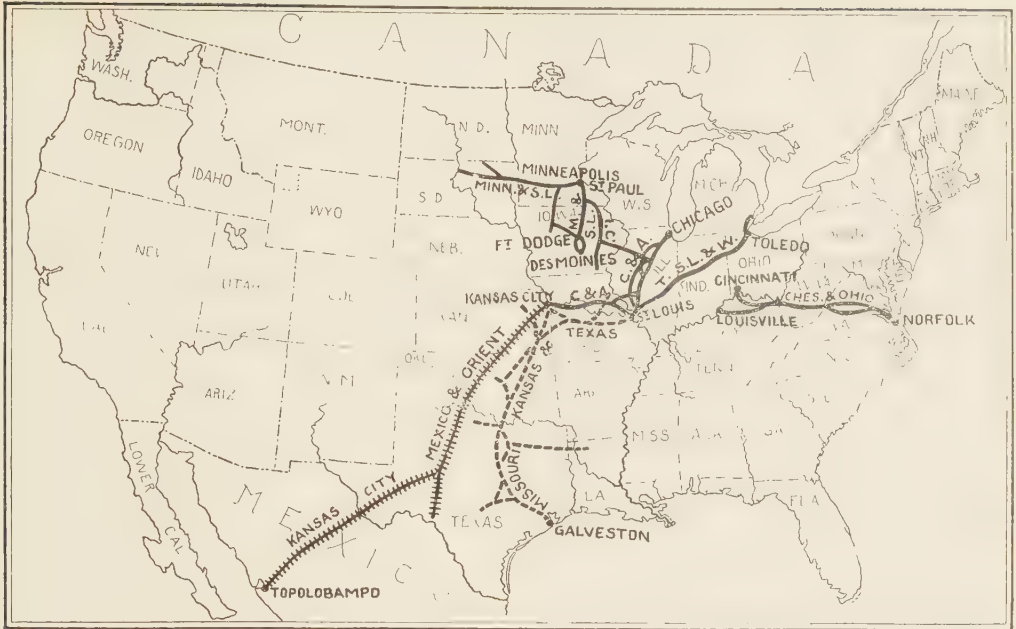
*Honoring
Verrazano.*

In impressive contrast with these exhibitions of New York political art is the splendid artistic statue of Verrazano which was unveiled on October 6 in Battery Park, at the southern end of the city, by the Italian societies and residents of the metropolis. The monument is the work of Ettore Ximenes, director of fine arts in the Ministry of Education of Italy. Verrazano Day was celebrated by a

parade of 25,000 Italian-Americans and by other exercises commemorating the achievement of Giovanni Verrazano, who in 1524 actually discovered the Hudson River, almost a century before the voyage of the great navigator whose more scientific and thorough study fully entitle him to the honor of having his name perpetuated by the noble stream.

*A New
Railroad
Group.*

A new great railroad group has appeared on the map, in alignment with the Harriman, the Morgan, the Hill, and the Gould systems. By the purchase last month of a controlling interest in the Missouri, Kansas & Texas Railroad Mr. Edwin Hawley has completed the ground-work of a system reaching from Newport News, on the Chesapeake, to Le Beau, South Dakota, and to Kansas City, and running south to Galveston on the Gulf.



MAP OF THE HAWLEY RAILROAD LINES.

The most important item in this congeries of relatively small roads is the Chesapeake & Ohio, reaching from Newport News to Cincinnati, an excellent road physically and financially, through many years prepared by the conservative control of the Pennsylvania to operate with admirable efficiency and economy. Since Mr. Hawley purchased the Chesapeake & Ohio last winter the price of its stock has advanced to 89, as against 22 in 1907. After the Chesapeake & Ohio, the Chicago & Alton is the most important component part of the new Hawley system. Besides the three mentioned, the new group contains the Minneapolis & St. Louis, the Iowa Central, and three smaller roads, the entire collection aggregating 8400 miles, and tapping nearly half the best agricultural and industrial area of the United States. Further, a traffic arrangement has been made between the Hawley group and the Kansas City, Mexico & Orient, now building across Texas and Mexico to the Pacific, which will give the new system the shortest route from the Pacific to the Atlantic seaboard by about 500 miles. The total capitalization of the new system is \$618,000,000. Much more must be done and great sums of money spent to bring the eight lines, as a whole, to the necessary efficiency as a trans-continental trunk line, but Mr. Hawley is regarded as a man equal to this task.

*Mr.
Hawley's
Career.*

Mr. Edwin Hawley is a quiet, effective man of fifty-nine years, who has a reputation of doing things and, even then, of not talking of them. He came down to New York from Chatham, up the Hudson, when he was sixteen years old, and started on his career as messenger boy for the Erie Railroad, at four dollars a week. He advanced slowly from one post to another, saving a little money and, even then, buying railroad stocks, until at twenty-one he became contracting agent for a California fast freight line. In that capacity he attracted the notice of the late Collis P. Huntington, who made him general eastern agent of the Southern Pacific, and later its assistant traffic manager. When Mr. Huntington died, Edwin Hawley appeared in some sort of control of the Southern Pacific, and he did not stand in Mr. Harriman's way when the latter bought the Huntington road for the Union Pacific. But Mr. Hawley was not kept among Mr. Harriman's strong men; nor later, when Mr. Hawley became a large stockholder in the Chicago & Alton, did Mr. Harriman include him in the directorate of that road. Thereupon, Mr. Hawley wrested the control of the Alton from Mr. Harriman,—perhaps the most important defeat suffered by that great organizer. Edwin Hawley is now frequently being compared to Harri-



GOVERNOR DRAPER, OF MASSACHUSETTS.
(Candidate for re-election.)

elected Democratic Governors, while remaining strongly Republican on national issues. Such an outcome this year would not be as surprising as the election of a Republican Governor in Virginia, where the Republicans have nominated the Hon. W. P. Kent to lead the forlorn hope. An uncertain factor in the Virginia campaign is the prohibition issue. Maryland is to choose a legislature and a State Comptroller and vote on the disfranchisement amendment to which we alluded in these pages last month. The legislatures to be chosen in Massachusetts, Rhode Island, Virginia, Maryland, and Kentucky will have an opportunity to vote next year on the income-tax amendment to the Constitution of the United States. The Democrats of Massachusetts and the Republicans of Maryland are committed in their State platforms to the passage of the amendment. The Republicans of Rhode Island, on the other hand, follow the example set by the Republicans of Massachusetts in recommending non-partisan action on the question.

*Affairs
of
Our Cities.*

While the New York City election engages national attention, there are municipal campaigns in progress in various cities, most of which have only a local interest. The Cleveland Mayoralty contest, in which Mayor Tom L. Johnson figures for the fifth time as a candidate, is an exception. The whole country is interested in Mr. Johnson's plucky and determined fight for re-election, after the defeat of his three-cent fare enterprise. All the other Ohio cities are to elect Mayors on November 2. Mayor Brand Whitlock, of Toledo, is also a candidate for re-election. The populous cities of New York State and New Jersey hold municipal elections on the same date, but their campaigns and candidates are attracting little attention. Municipal officers for the chief cities of Massachusetts are to be chosen next month at separate elections. The city of St. Louis, early in October, celebrated the one-hundredth anniversary of the municipality. Five years ago St. Louis astonished the world by holding a brilliantly successful world's fair, and since that date the city has made continuous progress. Not only has there been a steady growth in population, but a civic spirit has been awakened that promises much for the future. The chief feature of the centennial celebration last month was a long-distance balloon race, to which reference is made in our paragraphs on aviation.

man. Like the latter, he has come into national prominence comparatively late in life; he has some of the same unerring judgment of the possibilities in apparently unimportant railroads, and the brilliancy to capture them when he wants them; he has, like Harriman, an intimate understanding of the stock market, and the qualities to inspire a loyal following. It remains to be seen if he can do enormous constructive work of the sort that Harriman did in making a first-class trunk line out of a fourth-rate railroad like the Union Pacific,—by the expenditure of hundreds of millions of dollars years before others saw the profit in such an investment.

*A Few
State
Elections.*

The only State elections of importance this fall are those in Massachusetts, Rhode Island, Virginia, and Maryland. Governor Draper of Massachusetts and Governor Pothier of Rhode Island, Republicans, have both been renominated. Their Democratic opponents are, respectively, James H. Vahey and Olney Arnold, each of whom, it chances, led his party to defeat last year; but both Massachusetts and Rhode Island have at times

*The President
Nearing
Home.*

Mr. Taft has been persevering faithfully upon his long and toilsome pilgrimage of many thousand miles; and now in a few days, if all goes well, he will be at Washington again. He was entitled to a vacation after the adjournment of the tariff session in August. Many useful results, doubtless, will have accrued from his speech-making journey across the Northwest to Puget Sound, down through California to the Mexican border, across Texas, down the Mississippi River to the waterways convention, and up to Washington by way of some of the important centers of Southern life and influence. But the President is also needed at Washington. On the first Monday of next month Congress will be in session, and the President's message will be in order. Presidents and members of the cabinet travel much more freely nowadays than in the earlier periods of our Government; and while there are a number of good reasons for this change, there may also be some disadvantages resulting from long absences of many of the executive chiefs from their official desks.

*The
Vacant
Chinese Post.*

Without any disrespect to those in high authority, it may be assumed that if they had all been in Washington in late September and early October the post of Minister to China would not now be vacant. The President was on the Pacific Coast, Mr. Knox, Secretary of State, was at his summer home in Pennsylvania. Mr. Charles R. Crane, newly appointed Minister to China, was in Washington seeking to obtain his final instructions before setting sail from San Francisco for the mission to which he had been designated. As he was about to sail from San Francisco the State Department telegraphed him to come to Washington. He met Mr. Knox there and was invited to resign. Mr. Taft used the telegraph wires to confirm Mr. Knox's position. It will be remembered that President Taft had attached the greatest importance to the selection of a man for the Chinese post. When he found Mr. Crane he deemed himself highly fortunate in his choice. Mr. Crane was made the recipient of many honors, which he accepted without ostentation at the President's express request. It is generally not a good plan for a man



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PRESIDENT TAFT OPENING THE GREAT GUNNISON TUNNEL AT MONTROSE,
COLORADO, SEPTEMBER 23.

(For a description of this enterprise see this REVIEW for August, 1909.)

appointed to a diplomatic post to accept public attentions before he starts or to make any allusion, either in public speech or in conversation with newspaper men, to the objects or plans of his government with respect to the mission to which he has been appointed. But Mr. Crane, far from being warned against such things, felt that he had been encouraged in the opposite course. It is said that a Chicago newspaper declared that the State Department was making a study of the recent treaty between Japan and China relating to Manchuria. The New York papers had said this a good many days previously and everybody at Washington and elsewhere seems to have been making free with the same topic. It is further said that the Chicago correspondent had derived some notion of the importance of this question from a brief conversation with Mr. Crane. Just the character and extent of Mr. Crane's indiscretion, as seen by the State Department, have not been made clear to the public. It is all extremely unfortunate and almost without precedent in our diplomatic history. Nothing could have been more blameless or discreet than Mr. Crane's pleasant but brief remarks at the dinner of the Asiatic Society, given in New York in his honor on September 20. Yet his speech on that occasion was cited by the newspapers as one of the State Department's reasons for his summary dismissal.

*San Francisco
Honors
Portola.*

The month of October witnessed the celebrations by the metropolitan cities of both our Atlantic and Pacific seaboard of noteworthy historical anniversaries. Scarcely had New York rested from the ceremonies commemorating the three hundredth anniversary of the exploration of the Hudson River by the great navigator, and the first centenary of Fulton's steamboat triumph, before San Francisco began to rejoice with parade, pomp, and pageant over her complete reconstruction after the terrible disaster of earthquake and fire that overtook her three years ago. Her rejoicing took the form also of celebrating the one hundred and fortieth anniversary of the discovery of the Golden Gate by Don Gaspar de Portola in the year 1769. During the last days of October in the year 1769 this Spanish navigator sailed into San Francisco harbor, and his vigor and enterprise soon brought him the honor of being the first Governor of California. Spanish sovereignty over the western half of what is



Photograph by Paul Thompson, N. Y.

MISS VIRGILIA BOGUE, QUEEN OF THE PORTOLA FESTIVAL IN SAN FRANCISCO.

(Miss Bogue, who is prominent in California society and the author of two novels, was selected as queen from a list of the most beautiful young women of the State.)

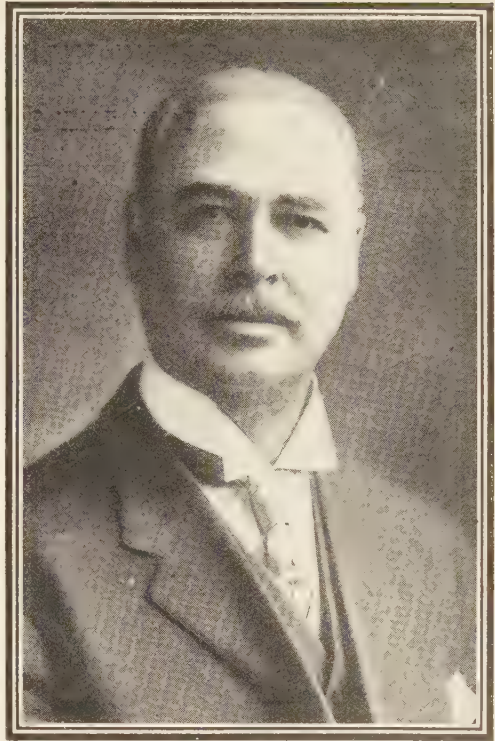
now the continental territory of the United States existed for a century and a half. It was not, however, until the middle of the eighteenth century that a revival of material prosperity in Spain itself, restoring her again to a place among the great powers of Europe, gave impulse to effective Spanish colonization in what are now the Western and Pacific States of the Union.

*Spanish
Influence in Our
Great West.* The expansion which started with the Portola expedition from the "vice-royalty of Mexico" first brought Spain into close connection with the main current of United States history. For more than half a century thereafter Spain and her dependency,—Mexico,—figured prominently in the history and development of our great West. The influence of Spanish thought, language, and customs is still strong in our Pacific cities, and it seems singularly appropriate that the Californian metropolis in making merry over her complete rehabilitation after the calamity of 1906 should do honor to the sturdy old Spanish

explorer who became her first Governor,—Don Gaspar de Portola. With our friends the Mexicans we have had political and geographical differences more than once in the past, which were very bitter. It is particularly gratifying that the last step in the formal reconciliation of the two governments and peoples should have taken place at the completion of President Taft's memorable tour through what was once a portion of Spain's American Empire, and while the city that stands where Portola landed in 1769 is doing honor to the memory of the Spanish discoverer.

*The
Taft-Diaz
Meeting.*

Mexican interest in the meeting between Presidents Taft and Diaz last month was very great. Coming straight from the only New Mexican point in his itinerary, Albuquerque, President Taft on the morning of October 16 arrived at El Paso, Texas, and proceeded to the international frontier. The ceremonies attendant upon his long-expected meeting with President Diaz, of Mexico, were appropriate and indicated the cordiality of the present day relations between the two governments and peoples. The venerable Mexican President was awaiting at one side of the international bridge over the Rio Grande, and his impressively elegant carriage of state was greeted with hearty applause as it crossed the line from Mexican territory into the strip of land known as El Chamizal, the ownership of which is still in dispute between the United States and Mexico. It was the first time the Mexican President had ever been outside of the limits of his own country while President, and to make this trip to foreign soil he had to secure permission from the Mexican Congress. The aged General Diaz was received with sincere cordiality by Mr. Taft upon the American side, and then the President of the United States paid his return call. Mr. Taft's momentary excursion across the border was the first that a President of the United States has ever made over our land frontiers. The meeting between the two executives was private, except for the presence of their staffs and official retinue. The meeting and ceremonies at El Paso cannot fail to make a deep impression upon the Mexican people of the vigor and ability of the aged President Diaz and to aid the campaign he is conducting for the election of his candidate, Señor Corral, to the Vice-Presidency at the general election which will be held next year.



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HON. GEORGE R. COLTON.

(The new Governor of Porto Rico.)

*Other
Latin-American
News.*

As for the rest of Latin America, the principal events of interest to the rest of the world reported from the southern continent and the islands of the Caribbean last month were an eight-day session of the Cuban Congress, of which the only noteworthy accomplishment was the appropriation of \$100,000 for the relief of recent hurricane sufferers in the western provinces, a new and at this writing apparently serious revolution against President Zelaya, of Nicaragua, the accession to office of Col. G. R. Colton as Governor of Porto Rico to succeed Regis H. Post, and the gratifying success of the Ecuadorian Exposition now in full swing at Quito.

*Germany,
the United
States,—
and England.*

In the welcome accorded by the New York populace to the sailors from visiting warships at the Hudson-Fulton celebrations last month there was no heartier note than that accorded to the Germans. His Majesty Kaiser Wilhelm II. had sent some of the really fine ships of his great navy, under command of Admiral von Köster, one of the most eminent

of his sea-fighters, to participate in the ceremonies. The good feeling shown was not merely on the part of our citizens of German birth but from native Americans as well. During the fêtes it was officially reported to the foreign fleets anchored in the Hudson that a son had been born to the German Crown Prince, and immediately all the warships in the river welcomed the royal birth with bunting and cannon. Only a few hours after the close of the celebrations the dispatches told us of the "tumultuous enthusiasm" of the German Emperor over the flight of Orville Wright in his flying machine at Berlin on October 15. The German monarch amazed the aviator with his knowledge of aeroplanes, and informed Mr. Wright that "after to-day's events the flying machine will have a different future as regards the German army." The press of the Fatherland, as well as of Great Britain, continues to discuss Anglo-German rivalry. British public men gave out more serious warnings last month as to the unpreparedness of Great Britain when it was announced that Germany had launched two "Super-

Dreadnoughts," vessels exceeding in tonnage and offensive power anything in the British navy. In connection with this German-English "scare" we commend to our readers the dignified and restrained, yet frank and noble sentiments of the German professor Dr. Schulze-Gaevernitz which appears in the article on page 602 this month.

*The British
Budget and
the Lords.*

English political leaders are still speculating as to the fate of Mr. Lloyd-George's budget in the House of Lords, and as to what course the Liberal administration will take in case of a rejection by the Peers of this epoch-making financial measure. A Parliamentary recess of one week, beginning October 11, was brought about, it was declared, through the influence of King Edward, who summoned to Balmoral for conference most of the Liberal and Conservative leaders. While the definite conclusions of this conference were not published to the world last month, it is quite certain at the time of our going to press that the desires of the upper house have all along been for a flat rejection of the budget,



Photograph by Underwood & Underwood, N. Y.

A NEW PICTURE OF KAISER WILHELM ON HIS YACHT, THE "HOHENZOLLERN."

a course from which the Peers have been deterred only by their fear of the result of an appeal to the country. Such an appeal, more than one Liberal leader has pointed out, would not merely decide the fate of the Lib-

posts,—Zeluan and Mount Gurugu,—were taken by assault by the troops of General Marina on September 27. Later reports, however, from French and Italian sources, indicated that the Spanish losses were much greater than supposed, and that the situation in Morocco up to the middle of last month was a serious one and increasing in gravity. A holy war is being preached throughout all northern Africa, and despite undoubted Spanish victories it is becoming evident that an African war on a large scale is facing the Spanish monarchy.

The Madrid Government celebrated the news of its victories over the Moors by doing away with the martial law administration of all Spanish provinces, or, as the dispatches put it, restoring the constitutional guarantees in all provinces except Gerona and Barcelona, where, during the past summer, it will be remembered, serious rioting occurred upon the calling out of the first troops for Morocco.

Relentless prosecution of the instigators of these riots (described in detail in this REVIEW for September) culminated in the execution, on October 13, of Prof. Francisco Ferrer, a well-known Spanish educator of radical tendencies. Ferrer, it was claimed by the government, was the instigator and director of the Barcelona riots. He himself, while admitting his radical opinions, denied any connection whatsoever with the uprising. Ferrer was a man of education and influence, founder of the Escuela Moderna (Modern School) in Barcelona. He had long been suspected of revolutionary activities, and several years ago he was tried for attempting to assassinate King Alfonso, but was acquitted. The trial of Ferrer was in secret. The accused man was not permitted to hear the direct charges against him nor to face his accusers, nor was he allowed to speak in his own defense.

The
Effect on
Europe.

MR. ASQUITH, THE BRITISH PREMIER, ADDRESSING THE HOUSE OF COMMONS ON THE SUBJECT OF THE BUDGET.

(From a sketch by the artist of the London *Daily Chronicle*, which is said to have been highly pleasing to Mr. Asquith himself.)

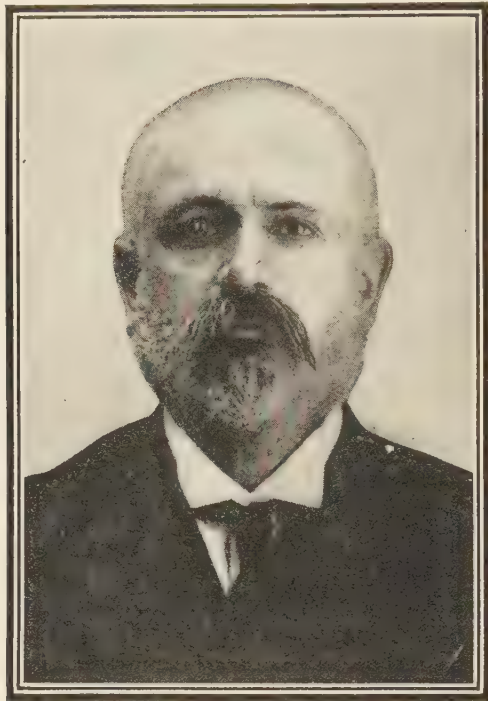
erals' financial measure; it would undoubtedly be a popular verdict, in all probability an unfavorable one, on the usefulness of the Peers themselves. Speeches by Premier Asquith and the Conservative leader, Mr. Arthur Balfour, during late September indicated a decided drift in British politics toward conducting the next general election campaign on purely tariff lines. Thanks to the efforts of Mr. Balfour and Mr. Joseph Chamberlain, it seems as though protection for the first time in many years would be the prime issue in a British general election.

Spain's Costly
Triumphs in
Africa.

The forward movement of the Spanish forces in Morocco,—increased during August and September to more than 50,000 men,—began early in September. The Spaniards attacked the Rifian Moors all along the line, and the first reports, via Spanish sources, told of several decisive victories in the neighborhood of Melilla. Two strongly fortified Moorish

The decree of the court-martial was carried out in spite of the protests and petitions by sympathizers not only in Spain but in France and Italy. Such names as those of Anatole France and Camille Flammarion in France, Gerhard Hauptmann and Ernst Haeckel in Germany, Maurice Maeterlinck in Belgium and the late Cesare Lombroso in Italy appeared on the protests. The Spanish Government insists that his connection with revolutionary movements had been proved, but his counsel





PROF. FRANCISCO FERRER.

(The Spanish educator and radical agitator, who was executed for treason at Barcelona on October 13.)

and friends contend that Ferrer was the victim of "clerical hatred." The news of his execution was the signal for general rioting throughout Europe. In London, Paris, Rome, and Vienna the police had great difficulty in restraining demonstrators and preventing violence. Interpellations were made concerning the execution in the British, French, and Austrian Parliaments, and in Italy Ferrer's fate was, curiously enough, popularly attributed to the influence of Czar Nicholas, of Russia. The Muscovite monarch, then on his way to visit King Victor Emmanuel, was compelled on this account to enter Italy in secret. When the Spanish Cortes met on October 15 it expressed loyalty to the government and the throne. Several deputies, however, made speeches condemning the government for its action in the Ferrer matter, and one of them declared openly that "this execution was an egregious political blunder." "The innocence or guilt of the man has nothing to do with the case. The object of his removal was to help restore internal peace in Spain, but to-day Ferrer's influence is much stronger in Spain and throughout Europe than it ever was while he lived."

*Hopeful News
from
Russia.*

In spite of the rather unfavorable reports as to the progress of the Russification of Finland and the results of the notorious "Agram process" in Austria-Hungary, the general character of the news from eastern Europe during the last few weeks has been rather better and more hopeful than for some time past. After a bitterly contested trial, fourteen members of the Russian Constitutional Democratic party, charged with "belonging to a non-legalized political organization," were acquitted, late in September, the result being to establish the legal existence of the party to which they belong. It is reported on good authority that conditions in Russian Poland have improved of late, and that martial law has been abolished in almost all the Polish "governments." Other Russian news in refreshing contrast to the much-repeated story of oppression and revolution, of knout, bombs, exile, and cholera, is the report of the grain crop of the empire for the present year. This is the most abundant for a generation, and, according to the Russian correspondent of the London *Standard*, this news, taken in conjunction with the report of the unusual Russian cotton crop, gives us assurance that "more Russians will be clothed and fed in 1910, and these more satisfactorily, than for many years past."

*Austro-
Hungarian
Topics.*

The Agram trial, which lasted seven months, resulted in the conviction of thirty persons for "high treason." The charge was participation in a movement for the union of Croatia, Slavonia, and Bosnia with Servia. Agram is the chief city of Croatia and the center of the region in which the Hungarian Government is attempting to "Magyarize" its Slavonic subjects. The conduct of the trial has been severely criticised as being prosecuted by the government for obviously political reasons and as being (we quote from one of the Croatian newspapers) "grossly unfair and in defiance of all provisions of the law." More gratifying in the cause of justice is the reported elevation to the rank of princess of the Countess Sophie Chotek, the Bohemian morganatic wife of Archduke Franz Ferdinand, heir apparent to the Austro-Hungarian throne. The Archduke's marriage to the non-royal Bohemian lady, it will be remembered, so displeased his royal uncle that the heir was forced to renounce for his children all claims to the throne. The



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BARON SHIBUSAWA, THE J. P. MORGAN OF JAPAN.
(Who is now on a tour of the United States at the
head of the Japanese Commercial Commission.)

elevation of the countess to the rank of princess indicates that the aged Emperor has become reconciled and that when Franz Ferdinand ascends the throne a way may be found to clothe his consort with really imperial dignity.

As with increasing frequency parties of distinguished Americans visit Japan and societies or commissions of eminent Japanese make tours of this country it is being realized by the American people that the economic future of the two nations, as far as the Orient is concerned, is absolutely dependent upon the continuance of their present cordial relations. This feeling has been made evident very significantly and impressively by the intelligent welcome given the Japanese Commercial

Commission, which for the past few weeks has been traveling throughout the United States. The chairman is Baron Eiichi Shibusawa, who is one of the most eminent of modern Japanese captains of industry, a banker, transportation expert, and a man of patriotism and large vision. The object of this commission, which has not been sent by the government, but by merchants of Japan, is to study American business and industrial methods. The commission is purchasing a large variety of manufactured articles which have heretofore not found a market in the Orient. The commission, furthermore, has purchased the newest machinery used in lumber, mining, and milling industries, and also devices for food preservation, and many of the labor-saving devices used in banking and commercial offices. Many American inventions will thus be brought for the first time to the notice of Japanese merchants. It is to be expected that an appreciable increase in trade between the two countries will follow the return of the commission to Japan.



DR. YASNIA UCHIDA, WHO WILL SUCCEED BARON TAKAHIRA AT WASHINGTON.

(Last month it was announced definitely that Dr. Uchida, who has been for some years Japanese Minister to Austria-Hungary, would succeed Baron Takahira as Japanese Ambassador to the United States.)



Photograph by Underwood & Underwood, N. Y.

THE PRESENT RULERS OF CHINA.

(Prince Chun, the present Regent of the Chinese Empire. The young Emperor stands at his left. The baby on the Regent's lap is brother of the Emperor.)

China and Japan in Manchuria.

The net result of the recent agreement between China and Japan regarding the Antung-Mukden Railroad (the terms of which were set forth in these pages last month) is that Manchuria, while nominally remaining an integral part of the Chinese Empire, will hereafter be controlled, if not actually administered, by the government at Tokio. By what is known as the Peking protocol of 1905 China formally gave up her right to construct any railway in the neighborhood of the south Manchurian line. Now, by the agreement already referred to, she virtually gives up further rights to build any railroad at all in Manchuria. When the lines now projected are completed Japan will have two railways stretching into the heart of Manchuria, the one connecting Port Arthur and Dalny with Mukden and the other traversing Korea. The latter is little more now than a Japanese province and China is apparently becoming more and more willing to agree with Japanese demands. The Land of the Rising Sun is gradually coming to

stand before the world as the champion and leader of the entire Far East. Meanwhile China progresses slowly. On the thirteenth day of last month, in accordance with the imperial edict of a year ago, "despotic government in China terminates forever." The first imperial edict was issued on that day, calling into being the "legislatures of the self-governing provinces throughout the empire." China, if all goes as planned, will have a constitution within the twelvemonth.

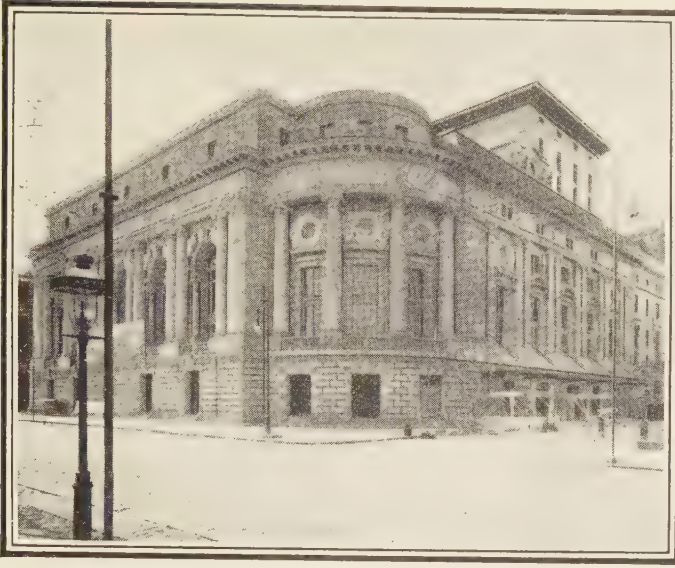
Shakespeare's Globe Playhouse.

A new phase of the everlasting Shakespeare discussion came out last month at the unveiling, on October 8, of the memorial tablet in London on the building (Barclay's,—the old Thrale's,—brewery) now occupying the supposed site of Shakespeare's famous old Globe Playhouse. The recently announced result of the researches of Prof. C. W. Wallace, of the University of Nebraska, discloses the apparent fact that Shakespeare's playhouse was actually in another part of the same street and not at the brewery in question. It is surprising how much discussion there has been by scholars and in the press of the world on this apparently trivial matter. It all only goes to show how Shakespeare's life and name have become the common property of the world's daily thought. This discussion comes rather significantly at the time when the the-



IS THERE ANYTHING BEHIND THE PRESENT CORDIALITY BETWEEN THE UNITED STATES AND JAPAN?

(The artist of Tokio *Puck* wonders whether behind the screen made up of the flags of the two nations Uncle Sam and Miss Japan are concocting any scheme regarding the future of China.)



Photograph by Brown Pros., N. Y.

NEW YORK'S INDEPENDENT THEATER.

(The New Theater, recently erected at Sixty-second street and Central Park West, New York City, which will be open to the public on the 8th of the present month.)

atrical situation in our own country, despite all the charges that are hurled against it of commercialism and low standards, has now approached sufficiently near to the situation in England during Shakespeare's time to permit of there being established in the American metropolis a really independent theater. The much-heralded New Theater in upper New York City, which begins its work of lifting our drama to loftier ideals on the eighth day of the present month, is neither an endowed nor a subsidized theater. It has been established by a group of wealthy men who have invested their money with no other purpose in view than to provide a playhouse where "superior art and plays of literary excellence" are to be presented regardless of the returns at the box-office.

*The
New Theater
in New York.*

This enterprise is not, however, the management informs us, "to be the toy of the rich." It is hoped, "in truth, to make this institution as distinctly democratic and civic as the *Comédie Française*." The repertoire is not to be made up of so-called "classical" works, or "advanced," "faddish," or "literary" plays. In short, the New Theater is "not to be a school for the select few, wherein a dull or tedious play of merit will be kept upon the stage for the purpose of instructing its patrons, but a playhouse for the public at large." Whether

or not in the selection of plays these claims and intentions will be borne out remains to be seen. It is significant and gratifying, however, to realize that the American theater is on the point of realizing its responsibilities and of becoming the ally rather than the enemy of education, of art, and of morals. It is, as the editor of the *Dial* so aptly puts it, an indication that the public is beginning to realize "the elementary propositions that the theater may be made a worthy educational agency, and that as such it should no more be expected to pay its own way than the college, the church, the public library, or the art museum." A number of the best, most

scholarly representatives of the American stage will appear at the New Theater. Light opera will also be given.

*Death
of
Lombroso.*

For three decades the name of Cesare Lombroso has been famous throughout the scientific world as that of an original and keen thinker in the philosophy of crime and its treatment and causes. Although at first encountering much opposition, the theories of this eminent Italian alienist and anthropologist have been finally accepted by scientists as establishing certain principles which have radically altered the old-time conception of the criminal. His two most famous works are "The Criminal" and "The Man of Genius." His theory of crime as set forth in the first of these works is, briefly, to the effect that criminals are born, not made. Criminal instincts were not implanted by surroundings and environment, he held; they were caused by a hereditary taint. Therefore of what use was it to imprison the thief and the murderer? Rather, they should be treated as diseased persons, being victims of a strange mental illness, over which they had no control. In the second work, "The Man of Genius," Lombroso endeavored to prove that all geniuses are more or less acute epileptics. Professor Lombroso died at Turin on October 19,—within a few days of his seventy-third birthday.

RECORD OF CURRENT EVENTS.

(From September 21 to October 20, 1909.)



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LEE M'CLUNG, THE NEW TREASURER OF THE UNITED STATES.

(Mr. McClung resigns the treasurership of Yale University to take the Washington post.)

POLITICS AND GOVERNMENT—AMERICAN.

September 21.—President Taft speaks in Denver in defense of the corporation tax.

September 23.—President Taft appoints Lee McClung, treasurer of Yale University, to be United States Treasurer, succeeding Charles H. Treat....New York City Republicans nominate Otto T. Bannard for Mayor, William A. Prendergast for Comptroller, and John Purroy Mitchel for President of the Board of Aldermen (see page 594).

September 24.—The new United States Tariff Board holds its first meeting at the Treasury Department, Washington.

September 25.—President Taft announces that Chief Forester Gifford Pinchot will remain in the Government service.

September 30.—President Taft, speaking at the Seattle Exposition, advocates ship subsidies.

....Massachusetts Democrats nominate James H. Vahey for Governor....New York City Democrats nominate Justice William J. Gaynor for Mayor.

October 2.—Massachusetts Republicans re-nominate Governor Draper.

October 5.—A special committee from the larger post-offices of the United States is appointed to investigate the money-order system.The Democratic convention of New York County nominates George Gordon Battle for District-Attorney.

October 6.—William R. Hearst is nominated for Mayor of New York City.

October 7.—Rhode Island Democrats nominate Olney Arnold for Governor.

October 9.—District-Attorney Jerome, of New



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THE MARQUIS DE VILLALOBAR.

(The new Spanish Minister at Washington.)



Photograph by Waldon Fawcett, Washington.

THE UNITED STATES ARMY'S FIRST AEROPLANE SQUAD.

(Photograph taken at the new United States Government Aviation Field, College Park, Maryland.)

York, withdraws from the contest for re-election.

October 11.—The United States Supreme Court meets for the term of 1909-10.

October 12.—Charles R. Crane, recently appointed Minister to China by President Taft, resigns upon the demand of Secretary Knox.

October 13.—Rhode Island Republicans renominate Governor Aram J. Pothier.

POLITICS AND GOVERNMENT—FOREIGN.

September 21.—The Australian Minister of Defense introduces the Commonwealth Defense bill....The Colombian Congress meets at Bogota.

September 22.—A. J. Balfour, the British Unionist leader, comes out as a strong champion of protection.

September 24.—The National Defense bill passes both houses of the Danish Parliament.

September 28.—At the reopening of the Hungarian Parliament the Premier, Dr. Wekerle, announces the resignation of his cabinet.

September 29.—Alderman Sir John Knill is elected Lord Mayor of London.

October 2.—By imperial order, Batoum is abolished as a military port of Russia.

October 5.—Venezuela is reported in a condi-

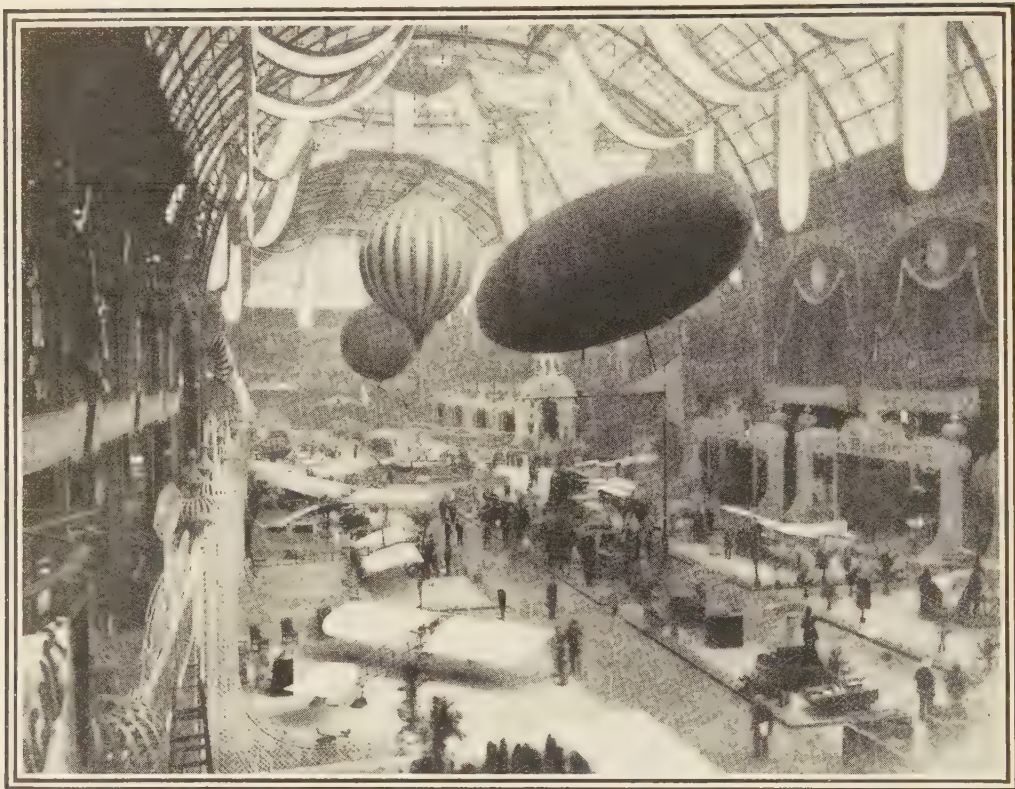
tion of political unrest, many prominent citizens having been arrested.

October 8.—Winston Churchill, president of the Board of Trade, announces to the British House of Commons that the government will make no overtures to the House of Lords, and that no amendment to the Finance bill will be accepted.

October 11.—Three army reform bills are introduced in the Greek Chamber of Deputies.... King Edward, of England, returns to London to confer with political leaders in the hope of avoiding a constitutional crisis.

October 13.—Professor Ferrer, convicted of revolutionary activity, is executed at Barcelona, Spain,—the execution causes great excitement among Socialists in Europe.... Juan J. Estrada has himself elected provisional president of Nicaragua.... A Chinese imperial edict recognizes the provincial assemblies, members of which will be chosen to form the Imperial Assembly, which will draw up the constitution.

October 15.—The opening of the Spanish Cortes is marked by a fight between Conservatives and Republicans in the Chamber of Deputies, occasioned by the execution of Ferrer.... There are strikes and riots at Naples, Pisa, Florence, and Rome in sympathy with the Spanish revolutionists.... The Greek Chamber of Deputies



Photograph by Paul Thompson, N. Y.

THE AERONAUTIC EXHIBITION AT PARIS LAST MONTH.

ties votes the bills abolishing the right of the royal princes to hold military commands.

INTERNATIONAL RELATIONS.

September 21.—Morocco refuses Spain's demand to withdraw the note asking intervention of the powers....The Moors lose 400 men in actions with the Spanish troops.

September 24.—Venezuela replies to Great Britain that no charge will be made in the 30 per cent. additional duty on goods imported from the West Indies.

September 26.—It is announced at Washington that a monument commemorating the founding of the International Postal Union will be unveiled at Zurich, Switzerland....The Bureau of Naturalization, at Washington, decides that Turks are not eligible for American citizenship.

September 28.—The third International Shipping Conference is opened at Brussels.

September 30.—The International Conference of maritime law, sitting at Brussels, completes the draft of a convention covering collisions and salvage at sea.

October 3.—A British syndicate and the Ottoman Bank accept the Turkish Government's conditions for a loan of \$35,000,000.

October 7.—The Russian Foreign Minister announces that the Harbin Tax dispute with the local German Consul has been settled.

October 8.—A dispatch from Constantinople

says that the government will reject all foreign claims for losses in the Adana massacres.... The diplomatic corps at Tangier refuses to intervene in the case of Spanish action in Morocco.

October 9.—The International Peace Bureau at Brussels adopts a resolution that the governments of the world establish a general fund for relief in great disasters.

October 11.—Prince Ito assures the United States Government that Japan will maintain the policy of the "open door" in Manchuria.

October 16.—President Taft, of the United States, and President Diaz, of Mexico, meet at El Paso, Texas, and Ciudad Juarez, Mexico.

October 19.—Nicaragua pays the first instalment of \$50,000 on the Emory claim.

OTHER OCCURRENCES OF THE MONTH.

September 21.—A hurricane sweeps the Gulf coast, causing a property loss of a million dollars in New Orleans.

September 22.—Prof. Edwin Clark Sanford is elected president of Clark College, Worcester, Mass....Captain Ferber, the French army officer, is killed while testing an aeroplane near Boulogne....The centenary of the birth of Lord Tennyson is commemorated in England.

September 23.—President Taft opens the great Gunnison irrigation tunnel in Colorado.

September 24.—The British and German fleets

of warship arrive at New York to participate in the Hudson-Fulton celebration.The International Aeronautic Congress favors navigation rules similar to those used in sea travel.

September 25.—Four French officers are killed by the bursting of the dirigible *La République* at a height of 500 feet....The Hudson-Fulton celebration begins at New York.

September 26.—Thirty balloons start from Paris in the long-distance contest of the French Aero Club.

September 27.—Hubert Latham makes a flight across Berlin to Johannisthal....The cornerstone of the Hudson memorial monument is laid by Governor Hughes on Spuyten Duyvil Hill, New York City....The Interstate Palisade Park, on the Hudson River, is dedicated to public use.

September 28.—Rougier, Bleriot, and Latham make aeroplane flights at Berlin.

September 29.—President Taft arrives in Seattle to visit the exposition.

September 30.—H. M. S. *Neptune*, the eighth *Dreadnought*, with a displacement of 20,000 tons, is launched at Portsmouth....Orville Wright ascends 700 feet in his aeroplane at Potsdam....The price of September wheat on the Chicago Board of Trade is advanced 14 cents....The *Mauretania* lowers the time between Ireland and America by forty-four minutes.

October 1.—Twenty-eight balloons start from Zurich in the international balloon race....M. Rougier covers 80.6 miles in the long-distance competition for aeroplanes at Berlin....Dr. James B. Angell retires from the presidency of the University of Michigan....The Cleveland Railway Company accepts the city's offer to settle the street-railway question.

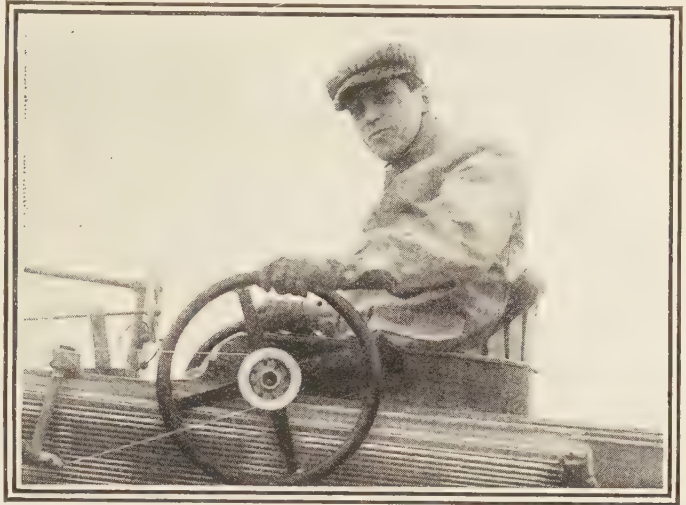
October 2.—The Kalvan Railroad, the first to be constructed solely by the Chinese, is opened to traffic.

October 3.—Seventeen balloons leave Zurich in the contest for the Gordon Bennett Cup and are driven in the direction of Russia....Hubert Latham attains a height of 580 feet in his aeroplane at Johannisthal....St. Louis begins the centennial celebration.

October 4.—The Cunard liner *Lusitania* completes the record run from New York in 4 days, 15 hours, and 52 minutes....Eight balloons start in a distance and time contest from St. Louis....Wilbur Wright makes an aeroplane flight from Governors Island up the Hudson as far as Grant's Tomb and back (see page 551).

October 5.—Many miners lose their lives in a mine explosion near Nanaimo, B. C....President Taft visits San Francisco.

October 6.—A monument to Verrazano, the



Photograph by Levick, N. Y.

HUBERT LATHAM, THE DARING MONOPLANE AVIATOR.

Italian discoverer, who is held to have been the first white man to see New York Bay, is unveiled in Battery Park, New York City....Abbot Lawrence Lowell is inaugurated president of Harvard University.

October 9.—Wilbur Wright breaks the world's aeroplane speed record in a flight at College Park, Md.

October 12.—The United States Comptroller of the Currency closes the First National Bank, of Mineral Point, Wis., on account of a shortage amounting to \$210,000.



THE LATE CESARE LOMBROSO.

(The Italian criminologist—see page 539.)

October 14.—Dr. Ernest Fox Nichols is installed as president of Dartmouth College.

October 18.—Count de Lambert, using a Wright aeroplane, circles above the Eiffel Tower, Paris, at a height of 1300 feet.

OBITUARY.

September 21.—Ex-Congressman Thomas Hammond, one of the founders of the Hammond Packing Company, 66.

September 22.—Robert Hoe, head of the noted firm of printing press manufacturers, 70.

September 24.—Rev. John L. Withrow, D. D., for many years pastor of the Park Street Church, Boston, 72.

September 25.—Ex-Governor Charles James Bell, of Vermont, 64.... Archbishop Roerdan, primate of the Danish church.

September 26.—Rear-Admiral Charles J. Barclay, U. S. N., retired, torpedo and ordnance expert, 66.

September 29.—Ex-Congressman William R. Morrison, of Illinois, for many years a Democratic leader and a veteran of the Mexican and Civil wars, 84.... Ex-Governor Miles B. McSweeney, of South Carolina, 54.... William H. Palmer, owner of coasting steamers, 50.

September 30.—Dr. Anton Dohrn, founder and director of the biological station at Naples, Italy, 69.... Gen. Eliphalet Whittlesey, secretary of the Board of Indian Commissioners, 88.... Frederick Russell Burton, an authority on Indian music, 48.... Dr. George Edward Post, head of the medical college in Beirut, Syria, 71.... Dr. Xenophon Christmas Scott, a noted surgeon and oculist, of Cleveland, 68.

October 1.—Rev. Ignatius Renaud, S. J., a prominent Catholic educator, 70.... George W. Moore, a pioneer American minstrel, 84.

October 2.—Rear-Admiral Christopher J. Cleborne, U. S. N., retired, 71.

October 3.—Albert Pulitzer, formerly a New York newspaper publisher, 58.

October 4.—William Watson, the chairman of the Cunard Steamship Company, 66.... Edmond Kelly, lawyer and author, 58.... Dr. David H. Cochran, former president of the Brooklyn Polytechnic Institute, 81.... Chang-Chih-Tung, grand councillor of China.

October 5.—John R. O'Donnell, news editor of the New York *Herald*, 55.... Prof. Washington Irving Stringham, acting president of the University of California, 61.

October 6.—Ex-Congressman Lewis E. Payson, of Illinois, 68.... Dudley Buck, the organist and composer, 70.... Capt. John Joshua Nathaniel Webber, executive officer of the ironclad *Monitor* during the fight with the *Merrimac* in 1862, 80.

October 7.—Associate Justice Robert Roberts Bishop, of the Superior Court of Massachusetts, 75.... William T. Pipes, attorney-general of Nova Scotia, 59.... Mrs. Ettie Henderson, actress and playwright, 74.

October 8.—Naphtali Herz Imber, the Yiddish poet, 55.... Robert Lyon Rogers, for forty-two years United States Commissioner for Maryland, 83.

October 10.—Brig.-Gen. Amos S. Kimball, U. S. A., retired, 69.... Dr. John P. Reynolds,

for twenty years a professor in the Harvard Medical School, 83.

October 13.—Major-Gen. Alfred E. Bates, U. S. A., retired, 69.... George A. Edes, a veteran newspaper publisher and editor, of California, 69.... Rev. Albert A. Bennett, D. D., senior Baptist missionary in Japan, 60.

October 14.—Rt. Hon. Gerald FitzGibbon, Lord Justice of Appeal in Ireland since 1878,



THE LATE WILLIAM I. BUCHANAN.

(Mr. Buchanan was one of the most efficient of American diplomats of the present generation. His services to this country included directorships in the Corn Palace Exposition, in 1882, at the World's Fair in Chicago, in 1893, and the Pan-American Exposition at Buffalo in 1901, as well as diplomatic missions to the Argentine Republic, as boundary arbitrator between Chile and Argentina, as delegate to two Pan-American conferences, as American Minister to Panama, as special commissioner to Venezuela, and as special agent to the Hague Tribunal in the Venezuela arbitration case.)

72.... Rear-Admiral Robert W. Milligan, U. S. N., retired, 70.... John P. Poe, formerly attorney-general, of Maryland, 73.

October 15.—Brig.-Gen. Richard C. Drum, U. S. A., retired, 84.... Ex-Senator William Lindsay, of Kentucky, 74.... Ex-Congressman Henry R. Harris, of Georgia, 84.

October 16.—Judge William I. Buchanan, formerly American Minister to Panama, 56.... Hon. J. H. Hofmevr, member of the executive council, of Cape Colony, 64.... Col. Smith S. Leach, Corps of Engineers, U. S. A., 58.

October 18.—Francis Lathrop, the painter, 60.

October 19.—Cesare Lombroso, the Italian criminologist, 73.

October 20.—Benjamin F. Barnes, Postmaster of Washington, D. C., 41.

CURRENT TOPICS IN CARICATURE.



"BRINGING THEM TOGETHER."

(A significant feature of the President's Western trip.)
From the *Times-Star* (Cincinnati).

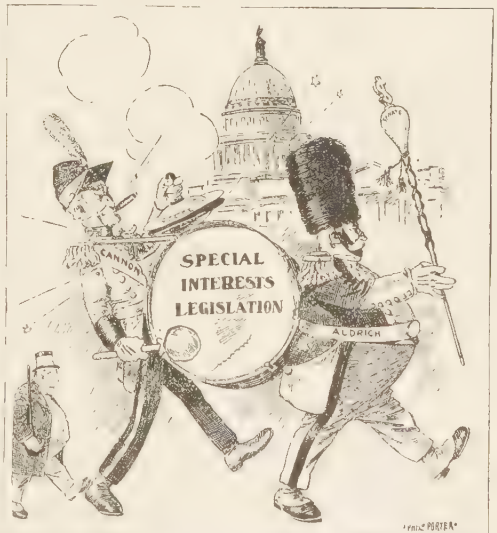


"INTERNATIONAL AMENITIES."

(President Taft's meeting with President Diaz, of Mexico.)
From the *Herald* (New York).



"SENATOR, DID YOU SEE WHAT TAFT SAID ABOUT YOUR BEING A FRIEND OF THE PEOPLE?"
From the *Plain Dealer* (Cleveland).



THE GAME OF FOLLOW THE LEADER.

("The good citizen must make himself a good loser. He must play the game. He is in popular government and he has to take what popular government gives him until by his influence with the people who control he can lead them in the direction which he would, and if they do not go in that direction he has to follow them.")—President Taft at San Francisco, October 5.)

From the *Traveler* (Boston).



KEEPING THE REPUBLICAN ELEPHANT IN TRAINING.

(President Taft making the circuit of the States and meeting with great ovations.)

From the *Saturday Globe* (Utica).

The above cartoon suggests that President Taft's trip through the country will serve to strengthen the Republican party in various States. The President has not confined his speeches to politics, however, but has on occasions "sermonized" on other topics. He is thus shown in the cartoons on the lower part of this page as occupying a pulpit and preaching peace

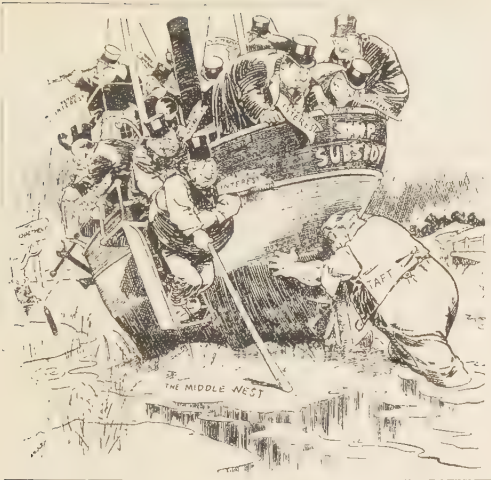


THE BALLINGER-PINCHOT CONTROVERSY.

The pulpit and the pew.
From the *Herald* (Boston).



"Conservation" of the Cabinet.
From the *Journal* (Minneapolis).



"IF IT WERE NOT FOR THE PASSENGERS HE MIGHT BOOST IT OVER."

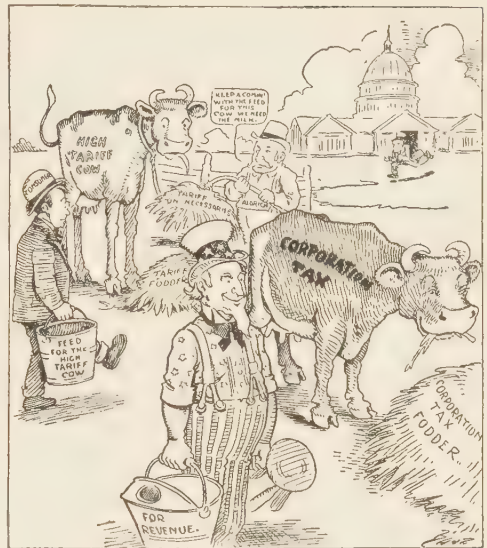
From the *Daily News* (Chicago).



"BEVARE OF THE VIDDERS!"
From the *Herald* (New York).



A SQUARE DEAL FOR ALL.
From the *Traveler* (Boston).



THE NEW CORPORATION TAX COW.

UNCLE SAM: "If this cow gives the milk I think she will, we can let up a bit on the high tariff critter."

From the *Journal* (Minneapolis).

to Messrs. Pinchot and Ballinger (who have had some differences of opinion regarding our conservation policies), while at the same time putting his stamp of approval on both men.



SPEAKER CANNON'S IDEA OF THE ORIGIN OF OUR BANKING SYSTEM IS THAT, LIKE TOPSY, IT "JIST GROWED."

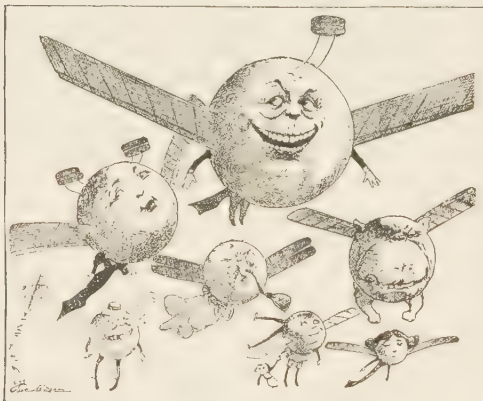
From the *Herald* (Boston).



"SEE-SAW, SEE-SAW."

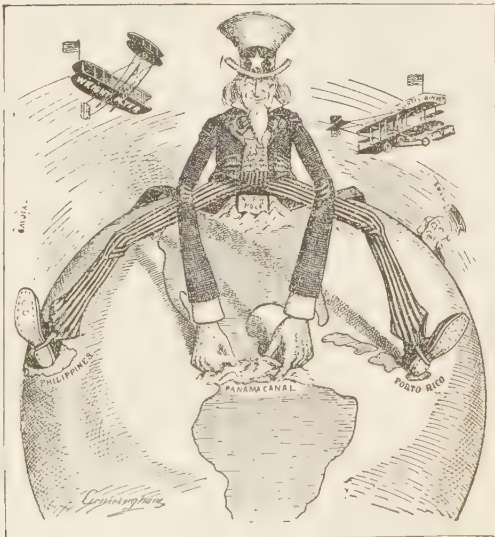
(Now it's Cock and now it's Peary,—indicating how public opinion sways from one to the other of the polar contestants.)

From the *Leader* (Cleveland).



THE WORLD AND HIS WIFE WILL BE FLYING SOON.

From the *Inquirer* (Philadelphia).



UNCLE SAM STRICTLY IN IT.

From the *Times* (Washington).



JUST SUPPOSE THIS HAPPENED!

(Apropos of exploration controversies.)

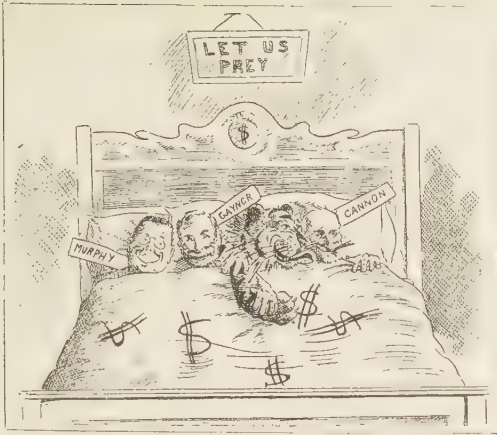
From the *Star* (Washington).

On this page we have the Cook-Peary controversy, with a suggestion of what might happen if Mr. Roosevelt's African exploits should be questioned; the rapid progress in the art of flying; Uncle Sam's notable achievements throughout the world, and his recent art acquisitions from Europe. The cartoons on the following page relate to the municipal fight in New York City and to pending matters affecting China, Japan, and incidentally the United States.

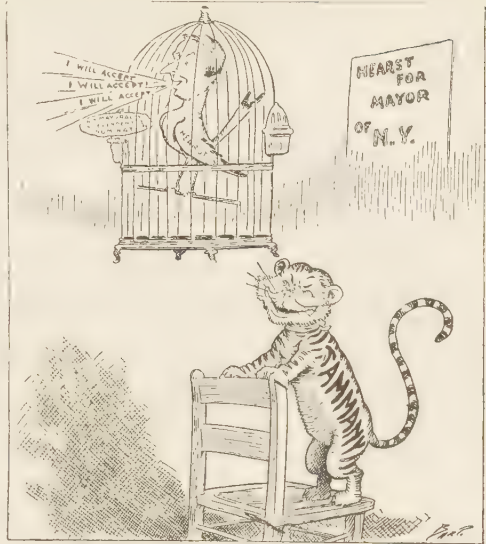


"AND YET THEY SAY OVER THERE THAT I DON'T CARE MUCH FOR ART!"

From the *Press* (New York).



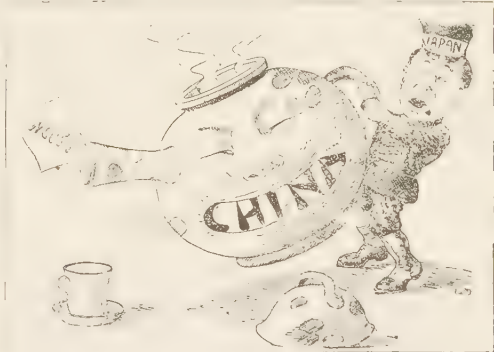
POLITICS MAKES STRANGE BED-FELLOWS.
From the *Call* (Socialist) (New York).



WILL HE GET THE CANARY?
From the *Journal* (Minneapolis).



WILL THEY QUARREL OVER THE SHELL?
From the *Herald* (New York).

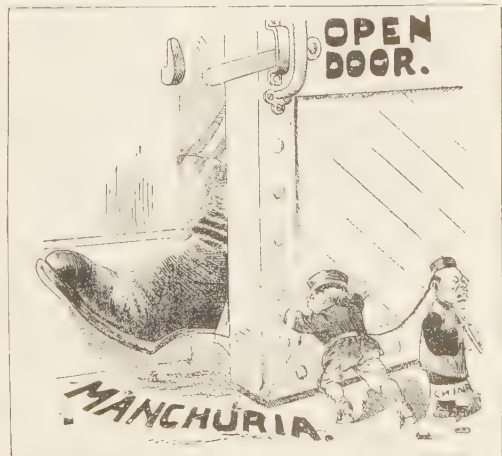


"PLUGGED."
From the *Morning Oregonian* (Portland).



POOR JOHN!
(John Bull's plight,—with the Frenchmen flying over his head, the Germans building new *Dreadnoughts*, and the militant suffragette belaboring him in the rear!)

From the *Herald* (New York).



"CLOSING HON. DOOR."
From the *Morning Oregonian* (Portland).



THE BEGINNINGS OF AMERICAN PROGRESS.

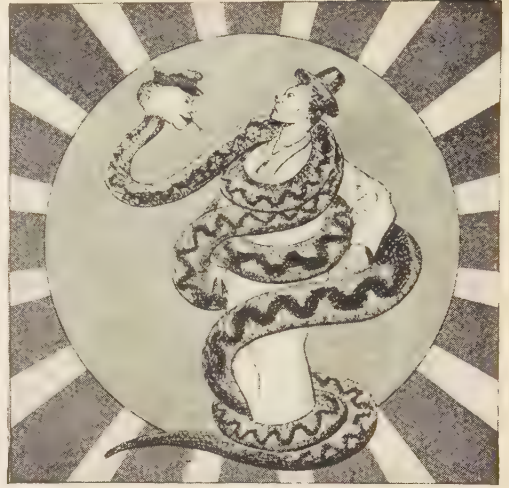
U. S.: "Could I possibly have sprung from that little thing?"

From *Amsterdammer* (Amsterdam)..



JOHN BULL'S LAST CHANCE FOR SAFETY.

(The cartoonist of *Ulk* (Berlin) suggests that to insure perfect security for the nervous, greatly harassed English people the British Isles be shut up each night in the strongest safe of the Bank of England.)

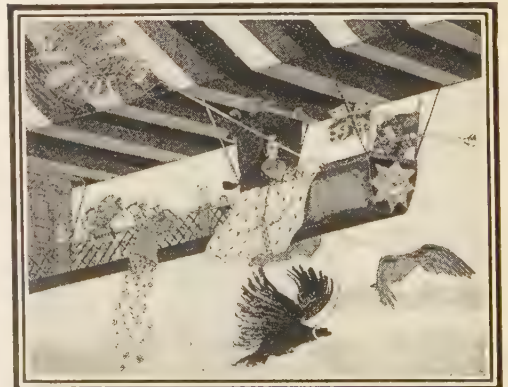


IS THIS TO BE THE FATE OF KOREA?
From the *National Review* (Shanghai).



THE NEW STAR OF THE EAST.

(This is the way Mr. Taft's Far Eastern policy looks to the *National Review*, of Shanghai.)



HIS IMPERIAL GERMAN MAJESTY'S AIR YACHT,
"THE HOHENZOLLERN."

(A prophetic view by *Ulk*, Berlin.)



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WILBUR WRIGHT APPROACHING GOVERNORS ISLAND ON HIS RETURN FROM THE FLIGHT UP THE HUDSON RIVER TO GRANT'S TOMB LAST MONTH.

(The New York city skyline on the right.)

THE AEROPLANE—A RETROSPECT AND A FORECAST.

BY J. BERNARD WALKER.

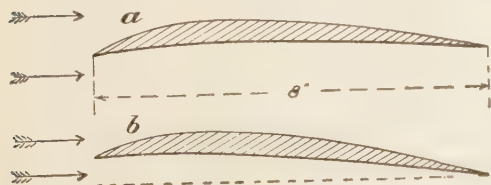
HUMAN FLIGHT,—that dream of the centuries,—is distinctly an American achievement. Among the many enthusiasts who have given thought and effort to the solution of the problem, four Americans,—Maxim in England, Langley and the Wright brothers in America,—stand head and shoulders above their fellows; and this is said without the slightest disparagement of the investigations, theoretical and practical, of such men as Hargrave in Australia, Lilienthal in Germany, Pilcher in England, Ader in France, and Chanute and Zahm in America.

It was twenty years ago, in 1889, that Hiram Maxim, aided by several wealthy men, applied his inventive genius to the problem. Realizing at the very outset that man, because of his limited strength in proportion to his weight, could never hope to fly with flapping wings driven by his own power, he determined to build a steam-driven aeroplane, believing that this was the only form of

heavier-than-air machine that held out any promise of ultimate success. At that time comparatively little was known about the supporting power of thin, inclined planes when driven through the air, or the resistance of the air to their progress, or the amount of power necessary to propel them. The Otto gas engine,—the progenitor of the light and powerful modern gas engine,—was in its very crude infancy; and there was no motor in existence that was at once sufficiently light to be carried by, and sufficiently powerful to drive, a self-sustaining, man-carrying aeroplane.

Nothing daunted, Maxim determined to investigate the problem for himself "from the ground up." He built on his place, near London, an experimental workshop and devised some very ingenious machines for determining what form of plane would give the greatest sustaining power and at the same time experience the least resistance from the atmosphere. One apparatus consisted of a square box, or pipe, through which, by means of a fan, a stream of air was driven at high velocity. At the far end of the box aeroplanes of various forms were supported, and by means of automatic registering appliances both their lifting power and end-on resistance were ascertained. With this appliance also he determined what form of wooden strut offered the least resistance.

Another apparatus consisted of a horizontal rotating arm, whose outer end traveled



An 8-inch, curved aeroplane, which was tested on a rotating arm and gave good results. Maxim found that it had a decided lifting effect even when the bottom face was placed horizontally, as at *a*.)



ONE OF THE LARGE SCREWS, 18 FEET IN DIAMETER, OF THE MAXIM AEROPLANE.*

through a circle 200 feet in diameter and carried the propellers and aeroplanes that were tested. A similar device was being used at about the same date by Professor Langley. Maxim made elaborate tests of the air propeller; and by means of a machine which automatically registered the thrust he tried out a bewildering variety of propellers, differing from one another in diameter, pitch, area, and form of blade. From the data thus collected he was able to select the type of propeller that was best adapted to drive the machine that he had in mind. The next problem to be wrestled with was that of providing a suitable motor, very light and very powerful for its weight. He built a pair of compound engines, with cylinders of high-grade cast steel, which, together, weighed 640 pounds and, with a steam pressure of 320 pounds to the square inch, developed 362 horse-power, or 1 horse-power for every 1.76 pounds of weight. Steam was supplied by a special water-tube, oil-fired boiler, which weighed about 1000 pounds.

From what has been said above it will be evident that this, the first man-carrying aeroplane ever built, was of enormous size and power, the planes being on the same gener-

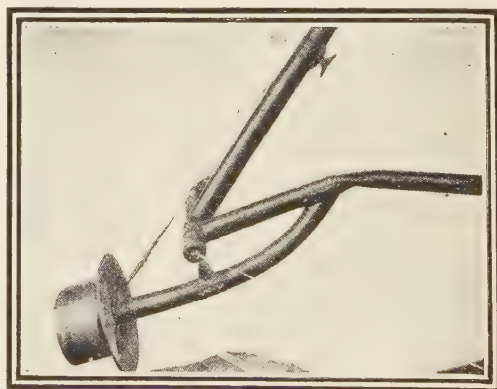
ous scale as the engines. It will be seen, moreover, that the design of this parent machine of 1889-92 embodied the essential features of the modern aeroplane. It consisted of a main aeroplane, *a* (see line drawing), with a forward horizontal rudder, *b*, and an after horizontal rudder, *c*. There were also on each side of the machine two inclined lateral planes, shown in the photograph of the model, which could be attached or not as desired.

A comparison of the leading elements of this machine with those of a Wright machine of seventeen years later will be of interest:

	Maxim aeroplane, 1892.	Wright aeroplane, 1909.
Width, feet.....	104	40
Lifting surface, square feet.....	4,000	500
Weight, pounds.....	7,500	800
Horsepower.....	362	30
Propeller thrust, pounds.....	2,100	240
Speed, miles per hour.....	38	42

With 600 pounds of water in the tank and boiler and three men on board, the total weight of the aeroplane was less than 4 tons.

For the experimental testing of his machine Mr. Maxim laid a two-rail track on his grounds, on which it ran on four wheels, *f k*, while gaining headway. To prevent the machine from rising high into the air before its manipulation had been completely mas-



THE OUTRIGGER WHEEL FOR PREVENTING THE BIG AEROPLANE FROM RISING MORE THAN A FEW FEET FROM THE GROUND.

(This was one of four such wheels that ran against the under side of a pair of rails. The lift of the aeroplane was so great that the axle collapsed.)

tered, Maxim provided four additional wheels, *m l*, which, when the machine rose, would engage another rail, *h h*, on its under side and cause the machine to fly in the air at a predetermined distance above the ground. On the trial run the huge 4-ton affair not only rose from the lower track but

* The illustrations of the Maxim aeroplane accompanying this article are from "Artificial and Natural Flight," by Sir Hiram Maxim. (Macmillan.)

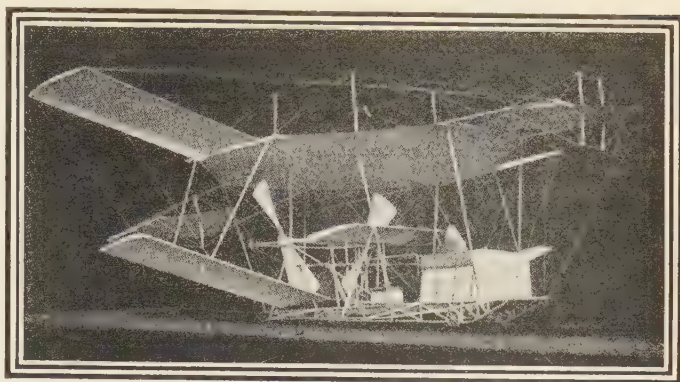
bore so heavily against the upper track that it was torn loose, and one of the rear axles, of 2-inch steel tubing, was doubled up, as shown in one of the illustrations. Maxim estimates, from the character of the wreck, that the total lifting effect of the machine must have been at least 10,000 pounds.

Already over \$100,000 had been expended in the experiments, and the backers of the enterprise becoming discouraged, the work was abandoned. Although Maxim had failed to make a free flight of any length, he had piled up in his few years of work a mass of practical information which was destined to prove invaluable to later investigators. Had he and his associates persevered a little longer there is no doubt in the mind of the writer that successful mechanical flight would have been achieved nearly two decades earlier than it was.

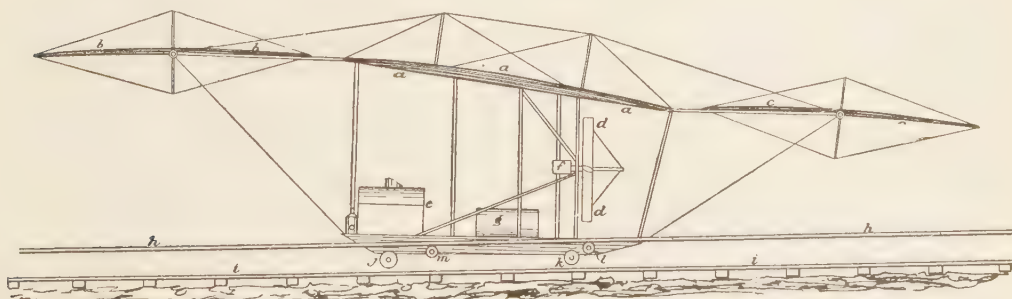
Following Mr., now Sir, Hiram Maxim's ambitious experiments with a man-carrying machine came those of the late Professor Langley, the secretary of the Smithsonian Institution. Langley had already made both a theoretical and a practical investigation of the laws of aeroplane flight, in which he used a "whirling table," which he designed for testing the resistance and supporting power of planes. His experimental work, though done on a smaller scale than Maxim's, was of a more detailed and philosophic character. It resulted in the formulation of certain "Laws of Flight," which were embodied in his great work, "Experiments in Aero-

dynamics," published in 1891, and have been accepted the world over. The most valuable of these was his affirmation of the principle that the *area of the necessary supporting surface in an aeroplane varies inversely as the square of the velocity*,—that is to say, if a machine, like the Wrights', requires 500 square feet for a speed of 40 miles per hour, at 60 miles it would need only 222 square feet, and at 100 miles per hour 80 square feet would be sufficient. Langley showed that the explanation of this paradox was to be found in the fact that at the higher speeds the planes passed so rapidly on to new and undisturbed bodies of air, and stayed over one body for so brief an instant, that the planes had no time to completely overcome the inertia of the air and force it downward.

He explained the phenomenon by likening the high-speed plane to a skater moving swiftly over thin ice, who was never long enough on any one portion of the ice to bend it to the breaking point. Having formulated the laws of aeroplane flight Langley designed



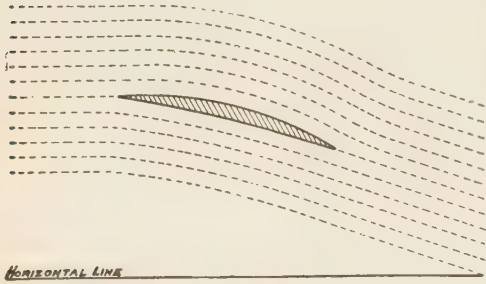
PHOTOGRAPH OF A MODEL OF THE MAXIM AEROPLANE, SHOWING THE FORE AND AFT HORIZONTAL RUDDERS AND THE SUPERPOSED AEROPLANES,



(a, Main aeroplane; b, forward horizontal rudder; c, after horizontal rudder; e, boiler; f, engines; d, propellers; f, k, wheels for running on starting track i, i; m, l, wheels to prevent machine rising above track h, h. This machine had 4000 square feet of surface and weighed four tons.)

SIDE VIEW OF HIRAM MAXIM'S AEROPLANE OF 1892.

a man-carrying aeroplane, and built a model, one-quarter size, which he called the "aerodrome" (air-runner). This machine, which was driven by a 1-horse-power steam engine and weighed 27 pounds, made, in 1896, three successful flights, each of less than a mile in length, over the Potomac River, near Washington. The "aerodrome" alighted on an even keel unharmed. Encouraged by this success, Langley secured from Congress an



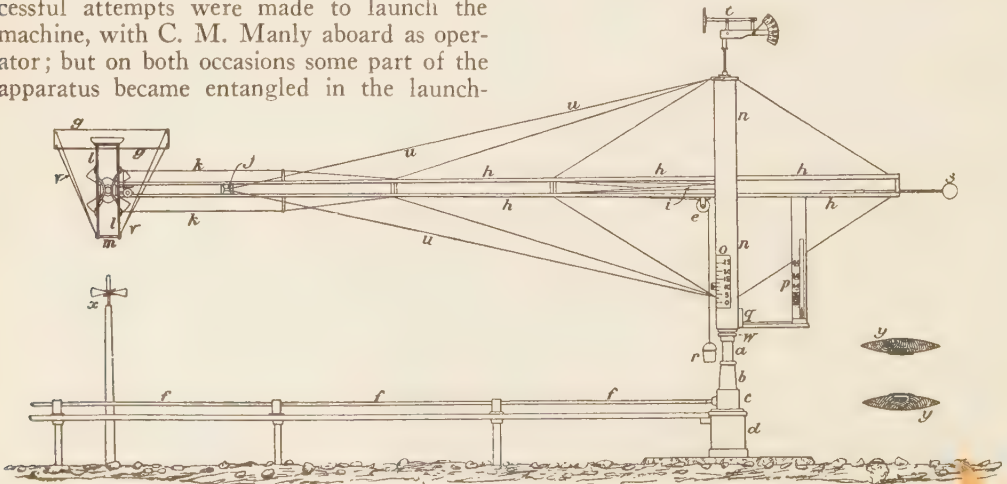
(An aeroplane at an extreme elevation of 1 in 4, showing how the stream lines of air follow closely the upper and lower surfaces.)

appropriation of \$50,000 for the construction of a full-sized machine. It was an enlargement of his model and consisted of a longitudinal body, carrying the engine, the fuel, two propellers,—one on each side,—two planes, one forward and one aft of the propellers, and a tail which acted as a compound rudder and steered the machine in both the vertical and the horizontal direction. The control was largely automatic. The engine, of 50 horse-power, was of phenomenally light construction. Two unsuccessful attempts were made to launch the machine, with C. M. Manly aboard as operator; but on both occasions some part of the apparatus became entangled in the launch-

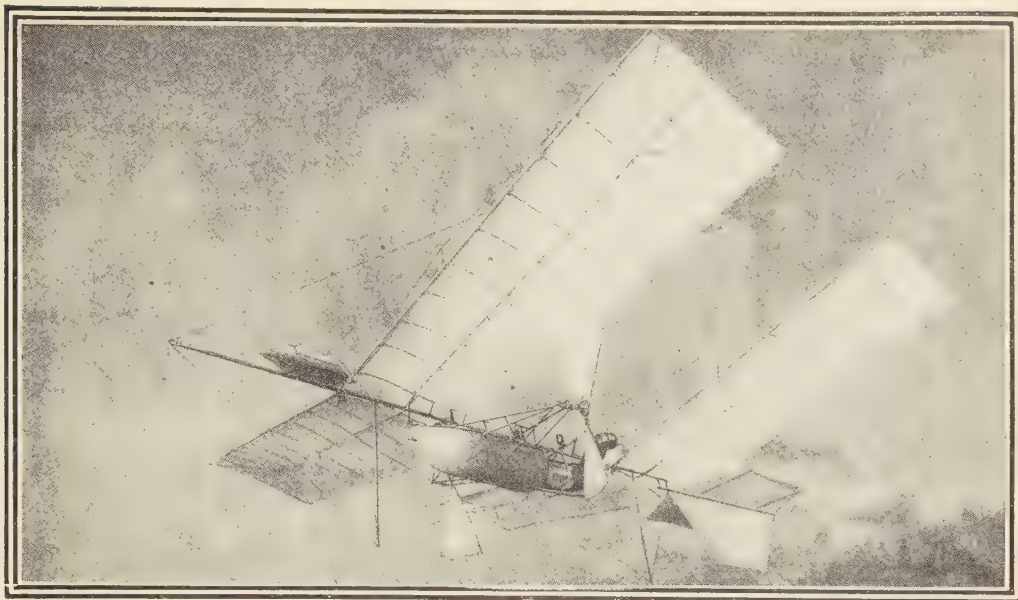
ing device and it was thrown headlong into the Potomac. Discouraged by the unjust ridicule of the daily press, and by want of funds, Langley abandoned the project. Here, again, just on the eve of success, the progress of the aeroplane was summarily stopped by want of the necessary capital and the failure of the public to appreciate the significance of what had been done.

Both the Maxim and the Langley aeroplanes may be said to have failed to fly because of man's total inexperience in the art of flying. We now know that it was a mistake to build these costly machines and then to use them as experimental apparatus in which to learn the very A B C of flying. The fault lay not with the machine but with the man. In all probability Maxim and Langley had both produced a practical flying machine; and had a Wright, a Farman, or a Bleriot, with his knowledge of the "feel" of the air, been available, Maxim's upper guiding rail and Langley's launching device could have been dispensed with, and in all probability both machines, after a few trials, would have made a more or less successful flight.

Evidently it was necessary to approach the problem along some other lines; and this was exactly what a German engineer, Otto Lilienthal, was doing between the years 1891 and 1896. This brilliant investigator built several aeroplanes with wings somewhat resembling the wings of a bat; and using the weight of the machines and of himself as a driving power, he made, in this period, over two thousand gliding flights through the air.



(Maxim's machine with a rotating arm, 31.8 feet long, to which were attached the planes *g* and propellers *l* to be experimented with. Professor Langley had a similar machine and called it a "whirling table.")



From the Smithsonian Institution.

THE LANGLEY MODEL AEROPLANE IN FLIGHT ABOVE THE POTOMAC RIVER.

(This machine, like the Maxim, failed to fly, but greatly assisted the progress of aviation.)

His method was to carry his "glider" to the top of a hill and, making a running start with the planes inclined upwardly against the air, launch himself free of the ground and glide for a distance of 400 or 500 yards down to the bottom of the slope.

A glider, or a motor-driven aeroplane, will move in perfect equilibrium without pitching or lateral rolling just as long as the center of gravity of the machine and the operator falls in the same vertical line with the center of pressure of the air. If the downward pull of the center of gravity be forward of the upward thrust of the center of air pressure, the machine will pitch forward and downward. If the center of gravity be to the rear of the center of pressure, the head of the machine will be lifted and the tail depressed. If the center of gravity be to the right of the center of pressure, the whole machine will begin to turn over to the right. If the center of gravity be to the left of the

center of pressure, the machine will begin to turn over to the left. If this derangement of the equilibrium be not quickly corrected it can readily be seen that the machine will capsize completely. Lilienthal corrected any eccentricity of the points of the centers of gravity and of pressure by shifting his weight to the required degree. Unfortunately, he was killed in 1896 by the



THE LAST PHOTOGRAPH TAKEN OF HERR LILIENTHAL AND HIS DOUBLE-DECKED GLIDING MACHINE.

sudden upsetting of his machine in a gust of wind. His experiments were taken up by Mr. Pilcher in England, who, all too soon, became a martyr to aeronautics, his death being caused by a fall similar to that of Lilienthal.

At about the time of Lilienthal's death the scene was shifted to America, where, in a few years' time, the art of motor-driven, sustained, and perfectly controlled flight was to see its first successful demonstration. In the year 1896 Octave Chanute began his classic experiments with the gliding machine, in which he introduced the valuable principle of controlling the balance not by the Lilienthal method of shifting the weight of the operator but by altering the planes themselves in such a way as to cause the necessary shift in the center of pressure. He also tested out gliders with multiple planes, in which the angle of inclination could be altered at will during flight. His most important contribution to the art was the construction of a glider with two superposed trussed planes, which carried a tail for the control of direction. This glider may be considered as the parent of the biplane machines with which the world has lately become so familiar.

Matters had now been carried to a point where everything was ripe for a successful demonstration of human flight; and the opening year of the twentieth century must ever be regarded as marking one of the most important epochs in the history of flying; for it was in this year that two bicycle makers of Dayton, Ohio,—Wilbur and Orville Wright,—became so much attracted to the problem that they began that practical investigation which has made them forever world-famous.

Hitherto the new school of experimentalists, in their work with gliders, had aimed to produce a machine with automatic stability. The Wright brothers decided to work out the problem upon totally different lines and build a glider in which the control would be entirely manual. To control the tendency to pitching, they placed on a framework directly in front of the main planes a pair of small subsidiary planes, whose angle or pitch to the direction of flight could, by means of a lever, be varied at will by the operator. For securing lateral stability they introduced what is probably the most valuable feature in the modern aeroplane, namely, a method of warping or twisting the ends of the main planes in such a way as to balance an excess of pressure on one end of the

aeroplane due, say, to a gust of wind by inducing an opposing pressure. Thus, if the machine were beginning to roll over toward the right, the rear tips of the right-hand half of the planes would be depressed, causing an increase of upward thrust on that side, and the rear tips of the left-hand half of the planes would be lifted, causing the air to strike them on their upper side with a depressing effect. Steering to right or to left was accomplished by a vertical rudder carried at the rear. In order to diminish resistance, the operator lay prone upon the lower plane.

With this apparatus the Wright brothers went down to the sand dunes near the coast of North Carolina and spent no less than three years in making gliding flights. At the end of that time they had qualified for the degree of "bird-man." They were at home in the air. The quick manual control of the proper devices to meet any particular gust or disturbance of the air had become so much a matter of habit as to be practically instinctive. They were now ready for the grand experiment. A 16-horse-power motor was bolted to the lower plane and framework; two screw propellers were put in position at the rear, and with this machine, weighing 750 pounds, on December 17, 1903, a short flight of a few seconds was made. Subsequently, during these experiments, a flight of 850 feet was accomplished. To all intents and purposes the goal so eagerly sought through the centuries was won. The brothers returned to Dayton, where circular flights were practiced in a large field; and, at last, on October 5, 1905, a flight of 24 miles was made in thirty-eight minutes, at a speed of 38 miles per hour.

The claim of the Wright brothers to be considered the inventors of the first successful man-carrying flying-machine cannot be successfully disputed; for it is a most significant fact that the machine which flew in 1903 on the Kill-Devil dunes of North Carolina combined all the essential principles of the aeroplanes that have performed such wonderful feats during the present year. The different forms of adjustable wing tips which were found on several aeroplanes at Reims are merely modifications of the Wrights' devices for warping the planes.

Although the announcement of the successful flights at Dayton was received with many expressions of disbelief,—a disbelief which was intensified by the Wrights' refusal to make any public exhibition,—their



A THREE-QUARTER FRONT VIEW OF THE WRIGHT BIPLANE, AT GOVERNORS ISLAND, N. Y.

(Wilbur Wright is in center of illustration. The officer at the right is placing the wheel at one end of the lower plane in order to push machine back to the shed.)

success proved a powerful stimulus and awoke the dormant interest in the aeroplane. Santos-Dumont built a cellular machine, of the box-kite form, and made some short flights in France in 1906. Bleriot and Esnault-Pelterie had considerable success with the monoplane, and Farman and Delagrangue with the biplane, the two latter aviators making some short flights in 1907.

In 1908 the art of flying progressed by leaps and bounds. The various achievements are so fresh in the public mind that it is sufficient for the purpose of this paper to give a mere recapitulation of the principal performances. Orville Wright, in the Government tests at Fort Myer, made flights of over an hour's duration, and on various occasions carried an officer as a passenger. Wilbur Wright went to France and, by fulfilling certain conditions, sold the French rights to his patents for \$100,000. In the successful trials he flew 42 miles in one hour and thirty-two minutes on September 21, and on October 10 made a flight of over an hour, carrying one passenger. On another occasion he rose to a height of 380 feet; and on the last day of the year he broke all records by a flight of two hours and twenty minutes' duration, in which he covered 77 miles. In October, Farman in his Voisin biplane, made the first cross-country trip on record, flying from

Châlons to Reims, a distance of 17 miles. In the same month, Bleriot, in a monoplane, flew across country from Toury to Ardenay and back, a distance of 17.4 miles.

Wonderful as were the feats of flying in 1908, they were destined to be eclipsed by the sensational performances of the present year. On July 30 Orville Wright successfully completed the Government's tests at Fort Myer by making a cross-country flight of 10 miles, with a passenger aboard, at an average speed of 42.58 miles per hour. He had previously made a flight, with an officer as passenger, that lasted one hour and twelve minutes. The machine was accepted by the Government, and the Wrights received \$30,000 as its purchase price. The most sensational event of the year, at least in its appeal to the popular imagination, was Bleriot's successful 21-mile flight across the Channel on July 25 in his monoplane.

But it was reserved for the great aviation meet at Reims, which opened on August 22, to prove to the world how great an advance had been made in the art of human flight. No less than thirty-eight aeroplanes were entered, of which at least thirty-six made successful flights. The machines were divided about equally between the biplane and the monoplane types. America was represented by Curtiss with his light, small, swift, and

beautifully constructed biplane. Here the public was treated to the sight of as many as five aeroplanes in the air at one time, the more skillful pilots exhibiting a remarkable control of their machines in the gusty winds that prevailed. In the tests for high speed over short courses, the Bleriot monoplane and Curtiss' biplane were evenly matched, Bleriot winning the 6.21-mile race at a speed of 47.78 miles per hour and Curtiss securing the International Cup by covering the 12.42-mile course at a speed of 47.04 miles per hour. That the aeroplane had made wonderful strides in endurance was shown by Farman's winning the long-distance race, with a record flight of 111.88 miles in three hours, four minutes, fifty-five and two-fifth seconds. It should be mentioned that during the summer and autumn of this year both the Bleriot monoplane and the Farman biplane made successful flights with three people aboard.

Since the close of the Reims meet the Wright brothers have proved that the failure of their machines to distinguish themselves on that occasion was due rather to unskillful handling than any inherent mechanical inefficiency. Early in October, Orville Wright, in an exhibition at Berlin, rose to the unprecedented height of over 1600 feet. At about the same time his brother, during the Hudson-Fulton festival, flew successfully from Governors Island up the Hudson River, around one of the visiting warships moored off Grant's Tomb, and back to the island.

So much for the achievements of the past two years. It is a truly marvelous record, far exceeding the expectations even of the enthusiasts. And yet it must be evident to any thoughtful and impartial observer that, great as these performances are, they do not by any means justify the extravagant claims which have been made for this new and fascinating toy,—for toy it is, at least in its present state of development. There is a long road to travel before it becomes available for the average sportsman and takes its place with the automobile as an established means of recreation.

Unquestionably the field of sport will be its first and most successful sphere of serious exploitation. As an instrument of war it will be useful for scouting purposes, and possibly for attacking lines of communication, cutting telegraph wires, or even carrying a few men on a forlorn hope to blow up isolated and undefended bridges. The aeroplane will never be employed to carry high

explosives in the expectation of dropping them successfully upon important works of the enemy, and this for the reasons, first, that the amount which could be carried would be too insignificant, and, secondly, that from such an unstable and swiftly moving platform it would be impossible to launch the explosives with any accuracy of aim. To avoid machine-gun fire the aeroplane must fly at an altitude of at least a mile; and at such a height the dropping of explosives upon a particular object with any certainty of hitting the mark would be highly problematical. But for scouting the aeroplane would be ideal. Two men would man the machine, the aviator and an observer, the latter armed with a camera and a sketch book. Flying high and at high speed, the machine would be extremely hard to hit; and the observer would be carried over a wide circuit above the enemy's country, sketching the topography of the land and making notes on his map of the numbers and disposition of the enemy's forces and of the location and strength of his artillery and earthworks.

But when we are told that Bleriot's flight across the English Channel opens up the way for the transportation of an army of invasion of one hundred thousand men we are being led into the realms of pure imagination. To transport one hundred thousand men would require, in the present state of the art, not less than thirty thousand aeroplanes. Where, one asks, would they find the vast extent of cleared country, smooth and level, on which to land, and where would the machines be parked? If successfully parked, their acres of white canvas would make an easy mark for long-range shell fire. The whole thirty thousand machines would be ablaze by the time a dozen shells had been dropped into their midst; and the army of invasion would thus find itself cut off from its base and bereft of any possible means of communication, the Channel being held presumably by the enemy's ships.

The small freight-carrying capacity of the aeroplane will forbid its exploitation as a means of transportation; and its entire dependence upon favorable weather conditions will render it, at least for the present, incapable of fulfilling a contract for the conveyance either of mails or express matter or of living up to the exacting schedule of regular passenger service.

Admitting, then, that the aeroplane will be practically restricted to the field of sport,

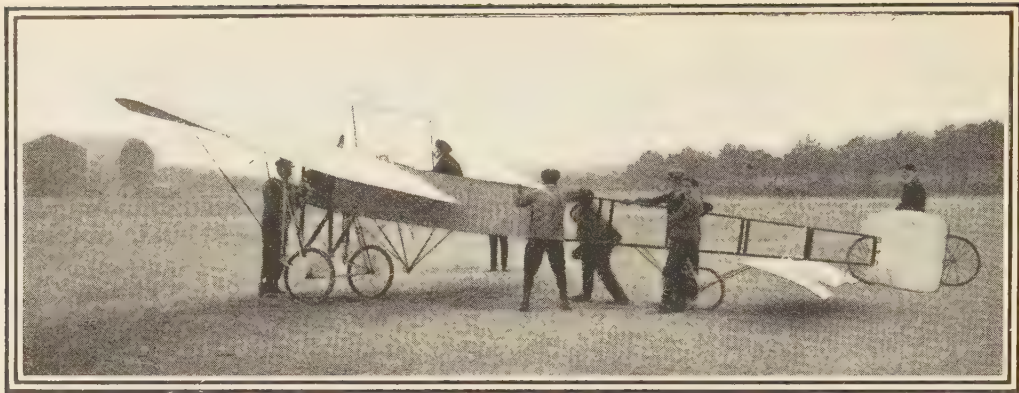
it becomes possible to forecast its probable lines of development. Wilbur Wright considers that his own motor is now equal in reliability to the average automobile motor; he has made 280 successive flights without a motor mishap and claims to have run one of his engines in a shop test for seven consecutive hours. He believes that the next notable advance will be made in the direction of "high flying." The difficulty of finding a landing place, in case of the motor stopping, will be largely obviated by flying high, even at the altitude of several thousand feet. Thus, at one mile elevation, in case of the stoppage of the motor, the operator would be in a position to glide for seven miles, on a slope of one in seven, before reaching the ground. Since this glide can be made in any direction, a choice of a landing place can be made out of the total area of 150 square miles included in a circle of 14 miles in diameter. High flying, moreover, will take the machine out of the belt of aerial billows and eddies caused by the passage of the wind over the irregularities of the earth's surface.

It cannot be denied that the most serious defect in the aeroplane is its inability to leave and return to the ground without considerable risk, except in a comparatively quiet atmosphere; and until this limitation has been removed it must be regarded as still in the experimental stage, even for the purposes of sport. If the aeroplane is to take its place with the sailing yacht and the automobile it must be rendered so far independent of atmospheric conditions that the owner can "go for a sail" in any but the strongest winds. No sport can become popular in which three-fourths of a day are spent in watching for a summer breeze to die down so that a trip may be taken in the remaining fourth. A possible solution may be found in the use of lifting screw-propellers, which will raise the machine vertically, clear of the ground, and be thrown out of gear as soon as sufficient forward velocity has been attained. The same propellers would allow of a gentle vertical descent in alighting.

The improved aeroplane of the future will without doubt contain some automatic device for maintaining equilibrium, both longitudinal and lateral. The gyroscope has been suggested for this purpose; but the problem of gyroscopic control is not so simple as it seems. Because this device has been used successfully to prevent rolling in a steamer, we must not jump to the conclusion that it can be so used in an aeroplane. In the exact por-

tion in which the marine gyroscope resists rolling it tends to produce pitching; and it fails to make any perceptible increase in the pitching only because of the great length of the ship. Possibly the problem will be solved by attaching some of the heavier parts, such as the tank or radiator, to the planes with a hinged connection, so arranged that these parts will hang always in a vertical position. Their movements with regard to the planes might then be made to control, through suitable connections, the wing tips and the horizontal rudders. With automatic control installed the aeroplane would instantly, as the bird does automatically, adjust itself to any sudden gusts, eddies, etc., of the wind.

The sporting aeroplanes of the future will be divided into two classes,—slow cruisers of moderate horse-power and large supporting surface and high-speed racers of small surface and large horse-power. It was mentioned earlier in this discussion that the area of the surface necessary for flight varies inversely as the square of the speed. Nature has recognized this law in the evolution of the bird,—the slow-flying birds having wings of considerable width in proportion to their length and the fast-flying birds, such as the swift and the albatross, possessing long, narrow, bladelike wings. The racing aeroplane, therefore, will have great length of entering edge, but the planes will be narrow. Possibly they will be arranged to reduce their surface by reefing as the speed increases. It was shown above that if the Wright machine at its present weight could be driven 100 miles per hour the area of its planes might be reduced from 500 to 80 square feet. The weight of the superfluous 420 square feet, with its framing, could be put into a more powerful motor. The racing machine will be very light, long of plane, and lean in construction. The Wright machine of 30 horse-power weighs 800 pounds and ordinarily can be driven at about 40 miles an hour. The Curtiss machine of 50 horse-power weighs 600 pounds and has made a speed of 48 miles an hour, and Santos-Dumont claims to have lately reached a speed of 55 miles an hour with a little 30 horse-power monoplane weighing only about 250 pounds. Undoubtedly the mile-a-minute mark will be reached and considerably exceeded, though not so quickly as the public believes. For as a bar to high speed there stands the immutable law that a body, in moving through the air, encounters a resistance, which increases approximately as the square of the speed.



A SIDE VIEW OF THE BLERIOT MONOPLANE WHICH FLEW ACROSS THE ENGLISH CHANNEL ON JULY 25.

HOW AN AEROPLANE IS BUILT.

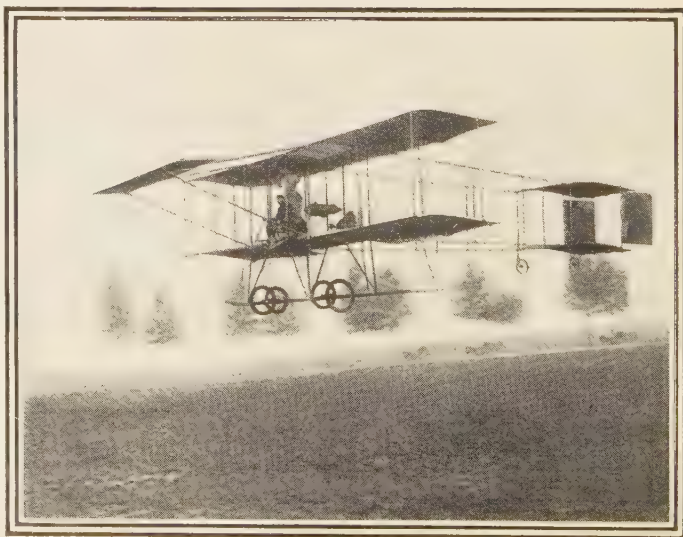
BY STANLEY YALE BEACH.

IN all probability the aeroplane will ultimately lead the automobile as a vehicle of sport, while for the pleasure trips of two or three people about level and open country or near rivers or lakes it will be decidedly in vogue. This article aims to give a clear idea of the different kinds of heavier-than-air flying machines of the aeroplane class that are now being built and successfully operated.

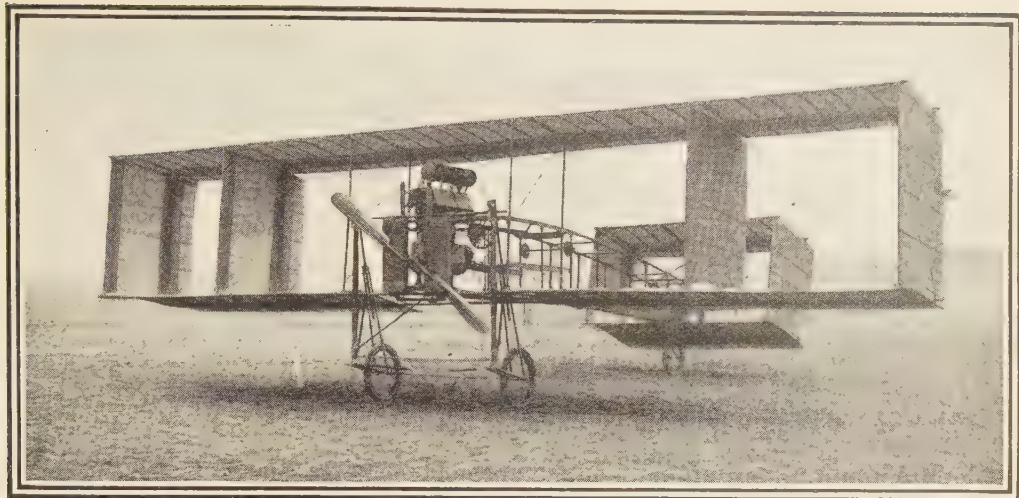
Besides aeroplanes the two other classes of flying machines that do not depend upon gas for support are helicopters, or lifting-screw flyers, and ornithopters, or flapping-wing machines. No machine of either of these types has ever made a flight, although several helicopters have risen from the ground and shown excellent lifting power. The best of these machines have propellers of large diameter,—about 20 feet,—the blades of which are practically small aeroplanes. The question of the lifting of man and machine in this manner has been solved, so that there only remains for solution those of dirigibility and the maintenance of equilibrium of the apparatus.

As for the aeroplane type of flying machine, this is generally classified under three heads, as follows:
(1) Monoplanes, (2) bi-

planes, (3) triplanes, or multiple-surface machines. Aeroplanes of the first class generally consist of a single plane, or pair of wings, attached to the front end of a long body which terminates at the rear in some kind of a tail, combined with horizontal and vertical rudders. Biplanes, triplanes, and other multiple-surface machines, in addition to a horizontal rudder in front, generally have a tail mounted upon sticks or bamboo poles extending back from the main planes; although the latest Voisin biplane has a body of square cross section similar to that of a monoplane, upon which the box tail is so



Photograph by Levick, N. Y.
FARMAN FLYING WITH A PASSENGER AT CHALONS, FRANCE.



THE FRONT VIEW OF THE LATEST TYPE OF VOISIN BIPLANE.

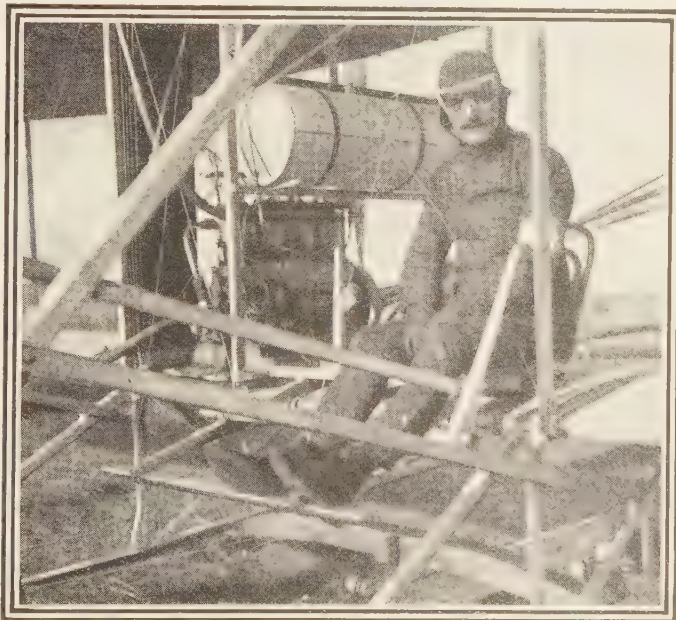
pivoted that it can be inclined upward and downward and made to act as a horizontal rudder. The vertical rudder for steering right and left is generally placed in the center of the box tail.

THE WRIGHT MACHINE—MOST EFFICIENT OF AEROPLANES.

Among the aeroplanes of American build the first machine to be noted is the Wright biplane. The fact that the aeroplane of these famous brothers is, as it stands today, the same in its essential features as when they first mounted a motor upon it six years ago shows how thorough was the preliminary work they did before attempting power flight. Despite the apparent crudity of the Wright aeroplane this machine is by far the most efficient that has ever been produced. At the present time it holds the speed record for biplanes of low horsepower, and also the record for height, while there is no doubt that either of the Wrights could establish a new record for endurance.

The motor-driven aeroplane of the Wright

brothers, like their original gliding machine, consists of two planes, about 40 feet long by 6 feet from front to back, and spaced about 6 feet apart. These planes are connected by uprights and are mounted upon two long runners that extend out in front about 10 feet and curve upward in order to act as a support for the horizontal rudder. This consists of two small superposed planes,



LUCIEN LEFEBVRE, THE DARING FRENCH AVIATOR, KILLED RECENTLY BY A FALL IN HIS MACHINE.

(The central part of the Wright biplane, showing the operating levers, motor, radiator, gasoline tank, and the starting rail below.)

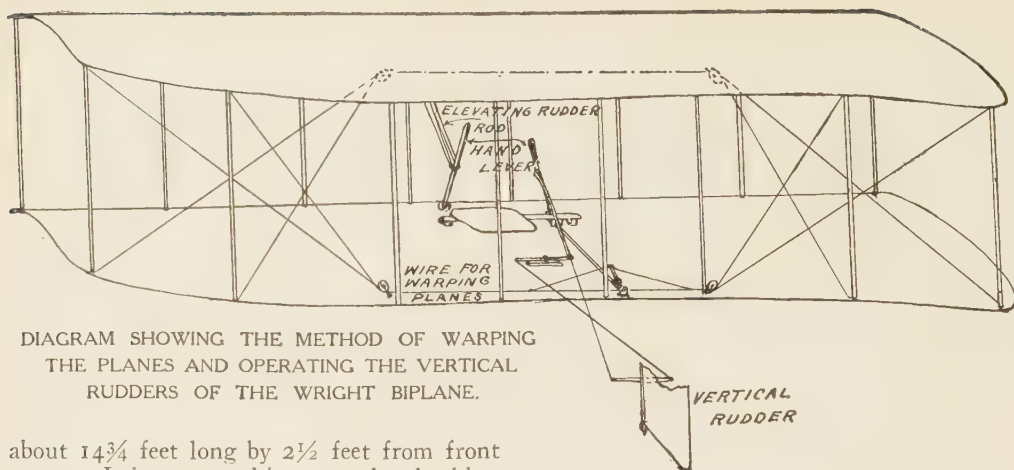


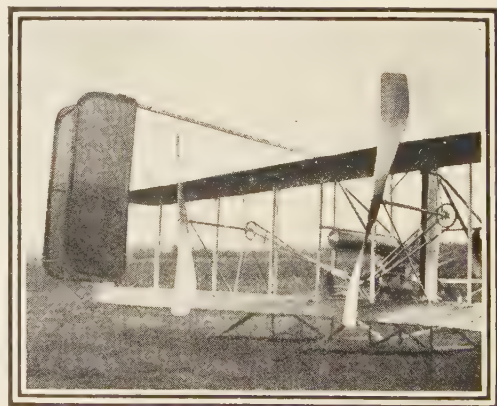
DIAGRAM SHOWING THE METHOD OF WARPING THE PLANES AND OPERATING THE VERTICAL RUDDERS OF THE WRIGHT BIPLANE.

about $14\frac{3}{4}$ feet long by $2\frac{1}{2}$ feet from front to rear. It is connected by a wood rod with a lever placed beside the aviator's seat on the front edge of the lower plane. By moving this lever forward or backward with his left hand the aviator can direct the horizontal rudder downward or upward and cause the machine to descend or ascend at will. The front rudder is constructed in an ingenious manner so that its surfaces become concave on the under side when they are turned upward and on the upper side when pointed downward. When in the neutral position they are perfectly flat. Thus advantage is taken of a curved surface (which produces a greater lift) to direct the machine upward or downward, while when it flies on a level keel the planes of the rudder are perfectly flat, so that they produce the least resistance.

In addition to the horizontal rudder in the front, there are twin vertical rudders placed about the same distance at the rear of the main planes. These are operated by a lever which the aviator holds in his right hand. This same lever can also be moved to the right or to the left, in order to warp the planes near their outer ends for the purpose of maintaining the transverse stability of the machine. The method by which this is accomplished is shown in the diagram. Two wires extend downward from the tops of the first and second uprights on the outer rear edge of the upper plane. These wires are joined to short pieces of chain, which pass over pulleys fastened to the center portion of the lower plane. A rod extends back from the operating lever and carries a short arm near its rear end, to which a wire connecting with the wire running to the upper plane is fastened. When the lever is swung to the left (as shown in the diagram) the wire connecting the upper ends of the uprights is

pulled in that direction, the result being that the right rear edge of the upper plane is pulled downward, as shown. Other wires run from the bottom ends of the right-hand rear uprights up over pulleys on the center part of the upper plane and down to the bottom ends of the uprights on the other side.

When the rear edge of the upper plane is pulled downward in the manner described, the lower ends of the uprights move downward also, and in so doing pull on the wires connecting them with the uprights on the other end of the lower plane. The result is that the latter uprights are raised and with them the rear edges of both planes. Thus it will be seen that when the rear part of the planes on one side of the machine is curved downward, the rear part of the planes on the other side is curved upward to a like extent. The curving of the planes produces a greater lift on one side and reduces the lift on the



Photograph by Levick, N. Y.

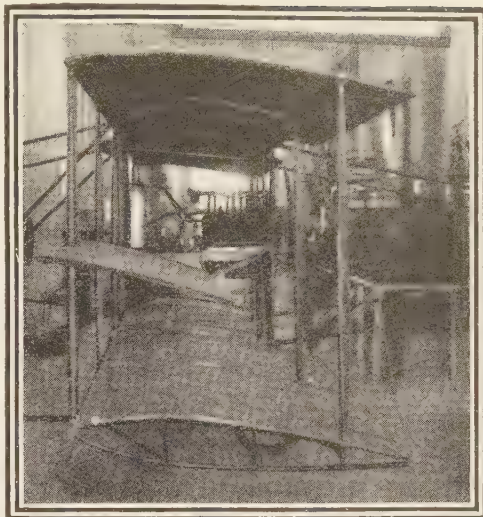
A REAR VIEW OF THE WRIGHT BIPLANE, SHOWING TWIN RUDDERS AND PROPELLERS AND INCLOSED CHAINS WHICH DRIVE THEM.

other side and the machine quickly rights itself. By moving the lever forward or backward the twin vertical rudders can be set. In making a turn, however, it is generally necessary to tip the machine slightly inward. In order to do this, the lever must be pushed forward and sideways at the same time.

PROPELLING POWER.

The power plant of the Wright aeroplane consists of a four-cylinder water-cooled motor of 30 horsepower, which drives by chains two propellers placed at the rear of the planes at equal distances each side of the center line of the machine. In order to reverse the direction of rotation of one of these propellers, the chain which drives it is crossed. The driving chains of both propellers run through steel guiding tubes. The propellers are about $8\frac{1}{2}$ feet in diameter, and they turn at a speed of from 400 to 450 revolutions per minute. They are made of wood and are very light in construction. The blades are wrapped with silk in order to strengthen them. The thrust obtained when the machine is anchored is only from 180 to 200 pounds, the propellers showing their best efficiency (about 75 per cent.) when the aeroplane is in flight. As a consequence of this small initial thrust it has been found necessary to provide a starting device, which, in this instance, consists of a single rail 75 feet long, upon which the machine rests on rollers. At one end of the rail is a tower with a heavy weight, the rope from which passes around a pulley at the other end of the track and runs back to the small car upon which the aeroplane is placed. When the weight falls, the machine is jerked forward with its propellers running and is launched into the air at a speed of 28 miles an hour. Ordinarily the machine can attain speed enough, when driven along the rail by its propellers alone, to rise when the end is reached, and in one instance last spring, in Italy, Wilbur Wright started on his runners on the wet grass. The brothers prefer skids and the starting rail in place of wheels on account of the possibility of alighting upon rough ground without damage. Eventually they will probably be able to start off the ground on skids without the necessity of a starting rail.

The use of two slow-speed propellers of fairly large diameter is one of the reasons for the efficiency of the Wright machine, the other chief reason being the curve of the surfaces of the planes. This curve is very nearly the arc of a circle and is not of the parabolic



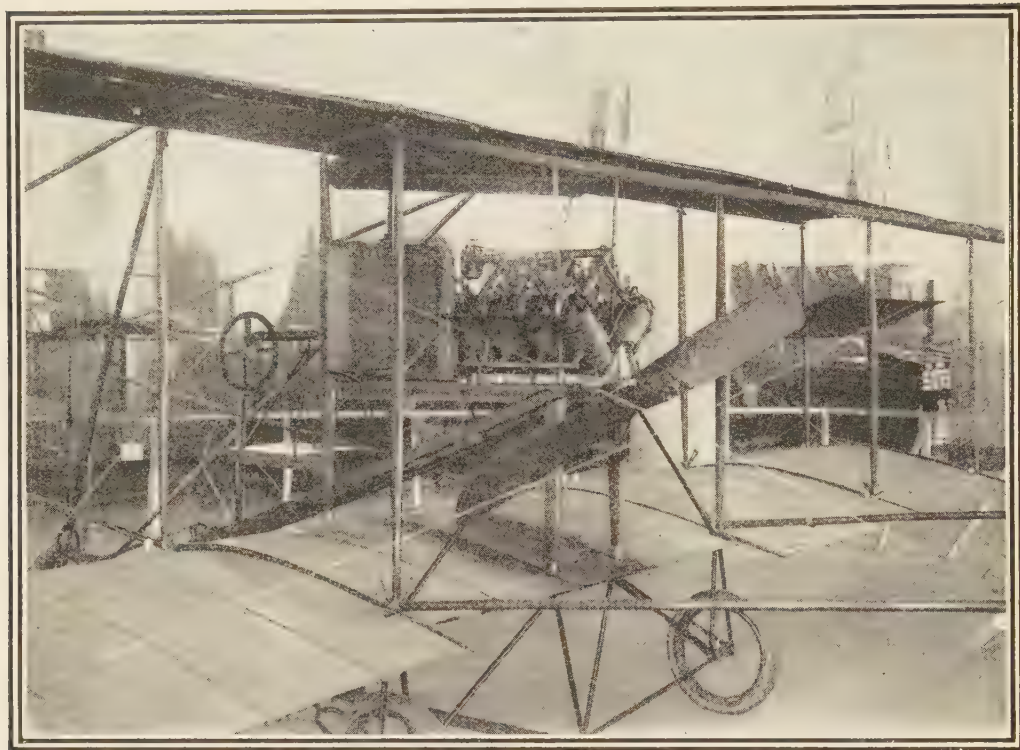
END VIEW OF THE CURTISS RACER.

(Showing balancing plane on the center of the front upright and the skid on under side of the lower plane. This illustration gives a good idea of the curve of the planes.)

shape which is generally used and which has been found to produce great lifting effect. The planes are constructed of two main frames, the outer ends of which detach from the center part. Light ribs are run above and below these frames and are held apart by blocks placed at intervals. The forward ends of the ribs are fastened to the front edge of each frame, while behind the rear edge, which they overlap about 18 inches, the ribs are secured together and slotted to receive a wire which passes around them and over which the cloth is stretched.

CURVE OF THE PLANES.

The covering of the ribs, both top and bottom, presents a smooth surface for the air to travel over and has been found to be more efficient than the other system used by Curtiss, shown in No. 5, page 566. In this arrangement the ribs are single and are laid upon the main frames and covered with a single layer of rubber-impregnated silk, which is laced to them in sections. The curve of the planes on the Curtiss machine, which is shown very well in the end-view of his Reims racer, is a good example of the parabolic curve that is said by some experimenters to give the greatest lift with the least drift,—or, in other words, the best lift with the least power required for propulsion. The fact that Mr. Curtiss made only 47



A REAR VIEW OF THE CURTISS RACER WHICH WON THE INTERNATIONAL CUP AT REIMS.

(One corner of the horizontal rudder is shown at the extreme left of the picture. The aviator's seat and the steering wheel are visible in front of the radiator. The 50-horsepower motor of the 8-cylinder V type carries a 6-foot propeller on its crankshaft. The gasoline tank is above the motor, the pipe leading to the carburetor being visible. The inclined bamboo poles running from the rear of the planes support the tail. The wires which operate the rudder run through the lower poles.)

miles an hour at Reims with his small 600-pound, 50-horsepower racer, as against the somewhat greater speed attained recently by Wilbur Wright when timed for a kilometer in a closed circuit with his 800-pound, 30-horsepower Government biplane demonstrates that the surfaces and propelling outfit of the latter machine are the more efficient. The Bleriot monoplane has a much deeper curve at the front edge of the plane than the Curtiss biplane, and while this does very well with a light machine at speeds up to 35 miles an hour, when an attempt is made to increase the speed the power needed is found to run up very fast.

THE CURTISS BIPLANE.

The 25-horsepower Curtiss biplane, which is the standard, is the smallest, lightest, and most efficient biplane (as far as the proportion of useful load to total weight is concerned) yet produced. It is fitted with a double horizontal rudder in front

and a single fixed tail-surface behind. Both are supported upon bamboo poles, extending some 10 feet to the front and to the rear. The aviator's seat is in front of the planes upon two inclined uprights extending from the rear edge of the upper plane down to the single front wheel. When seated the aviator has in front of him the vertical steering wheel, which he pulls toward him or pushes forward in order to go up or down, and turns in order to steer. The wheel is mounted upon a rod that extends forward to the horizontal rudder, while the tiller cable of the vertical rudder passes around the wheel in a groove and thence over pulleys and back through the bamboo poles to the tail. This method of protecting the tiller wires from the propeller is as simple as it is ingenious. The vertical rudder is split, half being above and half below the tail. A pivoted fork fits around the aviator's shoulders and is connected by wires to small balancing planes arranged between the main planes at their

ends. These are hinged upon the outermost front uprights. In making a turn, or when the machine tips to one side or the other, the aviator sets the balancing planes by leaning toward the center of the circle in one case and toward the high side in the other. The racing biplane shown has a sort of back to the seat arranged so it can move sideways. The Wright brothers have sued the Herring-Curtiss Company recently, alleging that the balancing plane method of controlling the transverse stability is covered in their patent on plane-warping; their French company has also taken action against the foreign infringers.

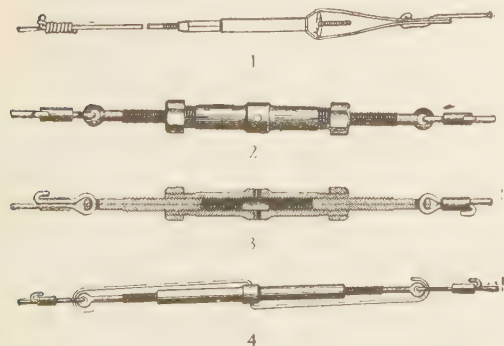
A SINGLE PROPELLER ON THE CURTISS.

The motor of the regular Curtiss machine is a 4-cylinder, water-cooled, light-weight gasoline engine of 25-horsepower, while that used on the Reims racer is of the 8-cylinder V type. The cylinders have steel water jackets. Gear water- and oil-pumps are attached to the aluminum crank case. A vanadium steel crankshaft is employed. The gas is supplied by a single float-feed carburetor. The Wright and Antoinette motor have pumps which inject the gasoline into the cylinders, but most aeronautic motors use a carburetor like that used on an automobile. The single propeller is mounted upon the engine crankshaft at the rear of the planes. It is about 6 feet in diameter, with 6-inch wide blades. Mr. Curtiss has recently tried a 4-bladed propeller with good results. Such a screw has a better flywheel effect, which is decidedly beneficial with a 4-cylinder motor when run without a flywheel, as in this instance. A flywheel is generally dispensed with when the propeller is mounted upon the crankshaft, but

otherwise, except with 8-cylinder V-type engines, a light flywheel is fitted. The weight of the 25-horsepower Curtiss motor is but 97 pounds. With the radiator, water, etc., the weight is increased to 140 pounds.

INGENIOUS CONSTRUCTION.

The entire constructive work on the Curtiss biplane is excellent. The longitudinals and uprights are all made oval, and the latter taper toward the ends. The ribs are of 4-ply laminated wood, the outer layers being of ash and the inner of spruce. The latter wood is also used largely for the framework and braces throughout the machine. The planes of the 25-horsepower flyer are 28 feet 9 inches long by 56 inches wide from front to back, and they are spaced 56 inches apart. They are made up in sections which are readily detachable from the central part, which carries the engine and propeller, and is mounted upon three wheels. Numerous guy wires with turnbuckles for tightening suitably truss the planes. These are placed in every panel, both lengthwise and crosswise of the machine. A skid is attached to each end of the lower plane to protect it from breaking in case the end of the plane strikes the ground in alighting. One of the drawings shows the simple form of turnbuckle used on the Curtiss machine. This consists of a triangular piece of metal through a hole in the flat end of which passes the nipple of a bicycle spoke. The spoke screws into the nipple and thus provides the takeup of slack in the guy wire, one end of which is attached to the spoke and the other end to the apex of the triangular piece. When made by an amateur the triangles can be cut from a piece of steel tubing about 1 inch in diameter and $\frac{1}{8}$ inch thick and hammered into shape afterward. The very best grade of tubing must be used, as otherwise it will crack when bent. Three other forms of turnbuckles used by the French aviators are also shown. In two of these eye bolts screw into the threaded body, which has a right-handed thread in one end and a left-handed thread in the other. The guy wires are attached to the eye bolts, which in one case have jam nuts on them for locking, while in the other a wire is passed through a hole in the center and hooked around the guy wire at the end.

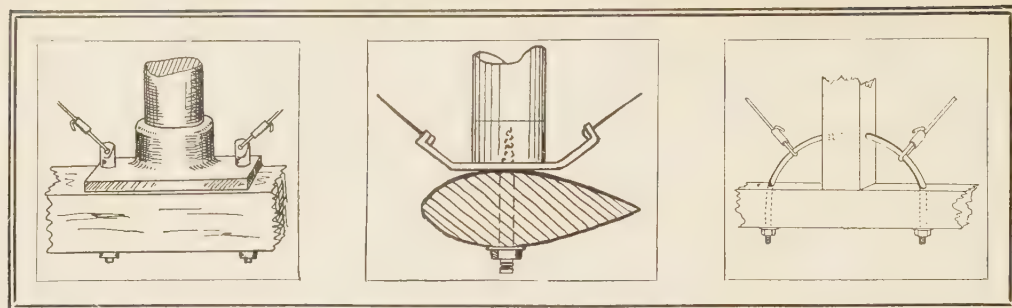


TURNBUCKLES USED ON AMERICAN AND FRENCH AEROPLANES.

1, Curtiss; 2, Bleriot; 3, cross section of Bleriot; 4, Voisin and Farman type.)

HOW THE FRAME IS FASTENED.

Three other drawings show methods of fastening together the frame. The second



(Voisin aluminum socket.)

(Curtiss method.)

(Bleriot's improved joint and fastener.)

JOINTS USED IN ATTACHING UPRIGHTS.

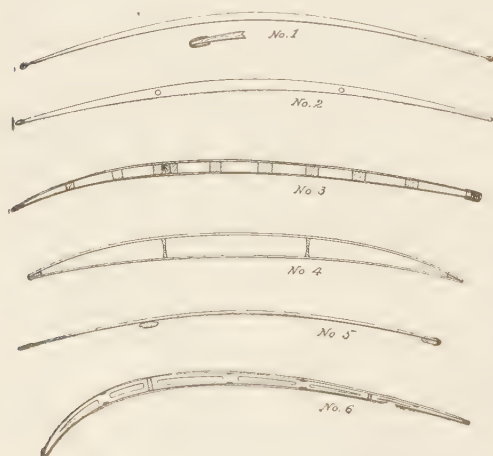
shows a longitudinal fastened to an upright by a screw bolt in a machine of the Curtiss type, while the first shows an aluminum socket used for the same purpose. The upright fits into the socket, which is bolted to the longitudinal. Eye bolts are used so that the guy wires can be strung through the eyes. This form of fitting is used chiefly abroad. Another ingenious scheme employed by Bleriot consists of a horizontal wire run through an upright and having its ends curved upward or downward and passed through holes in the longitudinals. Nuts are put on the threaded ends of this wire. The diagonal guys are cut just the right length and are drawn as tight as possible. They run to the curved parts of the short wires, and when the nuts on the latter are tightened they are shortened sufficiently to tighten the guys.

Different forms of construction employed in building up the main planes are illustrated below. No. 1 shows the construction used by Vanniman, consisting of oval steel

tubes for the longitudinals, with tapered slots cut in them to receive the wood ribs. No. 2 shows another form, in which wood ribs are strung upon steel tubes. No. 3 is a cross section of the Wright plane. The heavy front edge of the frame is seen at the right and the rear edge between two blocks near the left end. Ribs are laid above and below. No. 4 is a cross section of the wing of a monoplane machine built by the writer. The ribs are run over two I-beams and mortised into tapered front and rear edges. No. 5 is a cross section of the Curtiss plane and No. 6 of the Bleriot. The last named is very elaborately built up. The pronounced curve shown is at the front edge, which is made up of a U-shaped strip of aluminum, into which the ribs fit. These have thin vertical strips fastened to them, which are slotted and cut away for the sake of lightness. Other small longitudinal strips run lengthwise of each wing, as shown. Despite this elaborate construction, the weight of the complete wing is no less than another of the same size built by the writer.

THE FARMAN TYPE OF AEROPLANE.

Passing to the machines of foreign construction, the Voisin biplane,—better known as the Farman machine, because Henry Farman made the first successful flights with it,—was the first to use a box tail,—i.e., a tail made up of two superposed planes, with vertical connecting panels at each end. Originally the double-surface tail was not closed in at the ends, but after Farman and Delegrange found this to be a useful feature, the former next applied similar panels to the middle and ends of the main surfaces. Such panels appear to enhance the stability of this particular type of machine, although they, of course, make considerable skin friction and



CROSS-SECTIONAL DIAGRAMS, SHOWING CONSTRUCTION OF PLANES.

diminish its speed somewhat. In his latest biplane, which holds the endurance record of three and a quarter hours, Farman has dispensed with vertical panels in both the main planes and the tail.

A MOTOR WITH REVOLVING CYLINDERS.

The use of a revolving-cylinder air-cooled motor (which weighs only three pounds to the horsepower), because of the gyrostatic effect of its spinning cylinders, seems to give this machine a considerable amount of stability, while because of its high horsepower, with a relatively light weight, the large biplane upon which Farman uses it is speedy and has great weight-carrying capacity. At the wonderful aviation meeting at Reims, France, in the last week of August, Farman carried two passengers once around the 6.21-mile course in 10 minutes 39 seconds at an average speed of 35 miles an hour.

MONOPLANE MODELS.

While dealing with the foreign machines it will be well to describe the monoplanes. There are five different models of aeroplanes of this type making flights abroad at the pres-



THE CENTER OF FARMAN'S MACHINE, SHOWING CONTROL LEVERS AND RUNNER BENEATH.

(The lever in the aviator's right hand, when pushed forward or pulled backward, steers the machine up and down. When moved sideways it sets the wing-tips. Steering to right or left is done by the feet. The propeller is shown above and below the lower plane. Two cylinders of the revolving motor can be seen at the right.)



Photograph by Levick, N. Y.
FRONT END OF THE "ANTOINETTE" MONOPLANE.

(Showing motor and direct-connected propeller. The buffer below protects the propeller when the machine strikes the ground at too great an angle.)

ent time. These are the huge *Antoinette* monoplane of Hubert Latham, the tiny *Demoiselle* of Santos-Dumont, the well-developed machine of Robert Esnault-Pelterie, and the two models, Nos. 11 and 12, of Louis Bleriot. A duplicate of Bleriot's No. 11, which is the machine that carried him across the English Channel, has been brought to America only recently and will be used to make exhibition flights.

The *Antoinette* monoplane has been developed during the past three years by M. Levavasseur, the inventor of the light-weight motor of the same name. Like so many other inventors, Levavasseur started out to build an aeroplane and ended by designing a light-weight gasoline motor. This was named after Mlle. Antoinette Gastambide, the daughter of the capitalist who backed him. After his motor had been used successfully in motor boats and upon the flying machines of other inventors, Levavasseur at last was

able to build a machine of his own upon which to try it. This has passed through several stages of development before reaching its present form. As it is now built this birdlike machine consists of a pair of wings mounted with a slight dihedral angle (upward inclination of 1 foot in 12) upon the forward part of a long tapering triangular body. The front end of this body has a sharp boatlike prow made of wood, on top of which is mounted an 8-cylinder, V-type, water-cooled motor. Horizontal and vertical planes at the rear end of the body form a stabilizing tail. The rearmost parts of these planes are movable and form horizontal and vertical rudders.

The spread of the wings and the overall length, from front to back, of this machine is about 40 feet, while its weight is over 1100 pounds. The supporting surface is 323 square feet, making the load carried per square foot 3.4 pounds. With a 50-horsepower motor it develops a speed of 45 miles an hour. On the latest machine exhibited at the aeronautic salon at Paris a 16-cylinder V-type motor of 100 horsepower was fitted.

SANTOS-DUMONT'S UNIQUE CONSTRUCTION.

Santos-Dumont's "baby" monoplane is the exact opposite of the "Antoinette" in size and weight, although as far as speed is concerned it is superior. Of slight weight and stature himself, Santos-Dumont has tried to construct the smallest, lightest, and fastest flyer that will suffice for his personal needs. The result is the tiny machine illustrated. So small is this flyer that its owner is able to carry it about the country on a platform on the back of his automobile when he does not wish to take the air route. He has recently made some astonishing cross-country flights, in the course of which he landed at will upon the grounds of one of his friends,—and ran his machine under a shed to avoid getting caught in a thunder-shower. After the shower was over he again got out the monoplane and flew back home.

FASTEST AND LIGHTEST OF FLYING MACHINES.

After experimenting with both air-cooled and water-cooled motors of the double-opposed-cylinder type Santos-Dumont has recently had built, by the Darracq firm, a new light-weight water-cooled motor of this type, which weighs but 110 pounds and which is capable of developing 30 horsepower. This particular type of motor adapts itself very

nicely to a light monoplane, since it can be placed upon the front edge of the wings at their line of juncture and with the propeller mounted upon its crankshaft. The magneto is placed on top of the crank case and driven by enclosed worm gears. A narrow vertical water tank and a torpedo-shaped oil tank are placed just back of the motor. Radiators of small, thin metal tubes are laid along the under surface of each wing, a couple of feet out from the center. The tubes extend from the front to the back edge of the wing and conform to its contour. After passing from the top of the water jackets to the top of the tank the hot water descends through the latter and thence passes up through the radiators to sharp-edged headers at their upper ends, whence short pieces of rubber hose convey it to the lower ends of the copper water jackets. A gear water-pump, mounted on an extension of the magneto shaft at the rear, sends the few quarts of cooling water carried through the radiators at a rapid rate. The propeller used is a two-bladed one, about 7 feet in diameter. The engine turns it 1800 revolutions per minute. It develops 242.5 pounds thrust and is said to drive the monoplane at a speed of 55 miles an hour.

This is quite the fastest and lightest successful flying machine ever constructed. Exclusive of the motor it weighs only 132 pounds. It has 96.87 square feet of supporting surface and, with Santos-Dumont on board, weighs but 352 pounds complete. The weight carried per square foot of surface is, therefore, but 3.6 pounds. This is a low figure for a monoplane. The placing of the aviator's seat $2\frac{1}{2}$ to 3 feet below the plane counteracts the high position of the motor and makes the center of gravity of this machine somewhat lower than it is on most monoplanes. This, in addition to the slight dihedral angle of the wings, gives the machine such good lateral stability that Santos-Dumont has been able to carry aloft a 40-pound weight attached at a point a foot or more to one side of the center, and to drop this while in flight without the stability of his machine being affected. He has also flown with his hands off the control levers.

THE BLERIOT MACHINES.

M. Louis Bleriot has been experimenting in the new science of mechanical flight longer than any other living French aviator. In 1906 he made successful and exceedingly daring flights in a Langley type aeroplane. This consisted of two planes, one 15 or 20

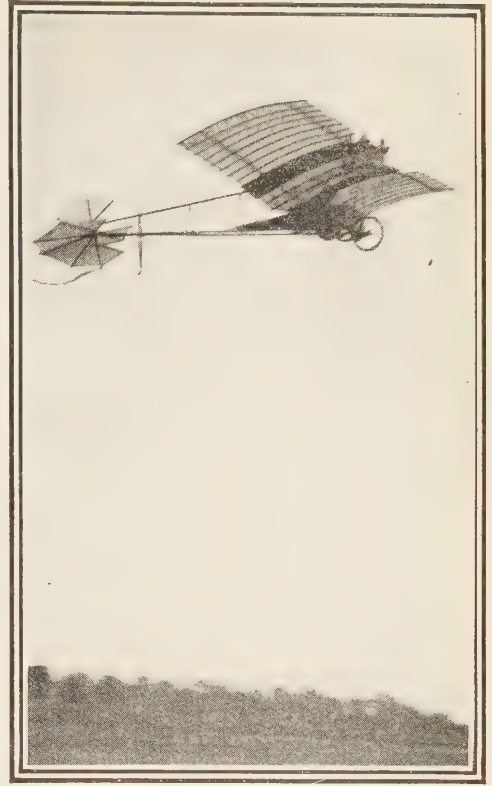
feet behind the other, on a long central body. Bleriot found he could reduce the second plane until it became simply a tail, and in this way he changed Professor Langley's design into a monoplane. He made a number of excellent flights a year ago with his No. 8 and No. 9 machines. These had wing tips on the ends or at the rear edges of the wings for maintaining the transverse stability. The first of the present year he brought out his No. 11 monoplane, in which the transverse equilibrium was maintained by warping. This is his most successful one-man machine.

The No. 12 is somewhat larger and differs from the No. 11, principally in having the motor set low in the body and arranged to drive the propeller at the front edge of the plane by a chain.

A NOVEL STEERING MECHANISM.

The great feature of the Bleriot monoplanes is the patented steering device. This consists of a very small wheel on top of a short shaft, which is mounted upon a universal joint. Just above the joint is a bell-shaped aluminum casting, to which run the wires from the horizontal rudders, and also two wires from a short lever forming part of a pulley and located on a tripod below the body. A wire cable extends down from a point near the outer end of the rear longitudinal beam of each wing and is wound tightly around the pulley. When the steering post is swayed to one side or the other the pulley is turned slightly, causing the cable to pull down on one wing and let up on the other. A second cable passing over a pulley in the brace above the body exerts an upward pull on one wing as its end attached to the other wing is drawn down. When the machine tips to one side or the other the aviator has only to swing the wheel to the high side in order to warp the wings and bring it back to an even keel, while in order to go up or down he pushes the wheel away from or draws it toward his body. The vertical rudder is turned to right or left by the feet, which rest upon a pivoted crosspiece like that used in steering a bobsled. In making a turn the machine is tipped slightly inward by warping the wings.

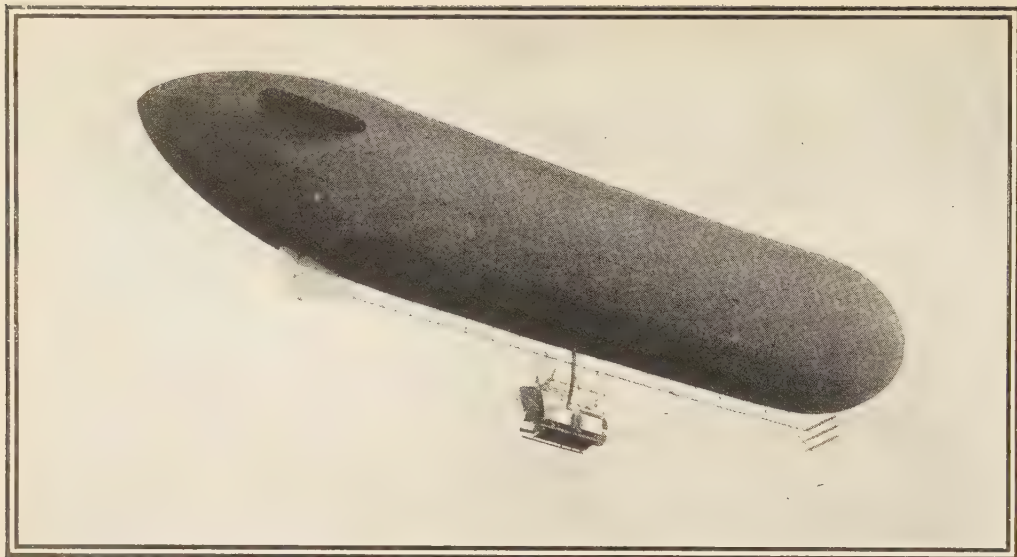
The Bleriot monoplanes are mounted upon



SANTOS-DUMONT IN FLIGHT IN HIS TINY MONOPLANE.

two wheels in front and one at the rear. Both front wheels are fitted with shock absorbers, consisting of elastic rubber rods, which are placed in tension and stretch when the wheels strike the ground. The power plant of the No. 11 consists of a three-cylinder Anzani air-cooled motor of 20 horsepower, with a 7-foot propeller mounted upon its crank shaft, while the No. 12 machine has a 35 horsepower water-cooled motor of the 8-cylinder V-type, driving the propeller by means of a chain. This latter machine has carried as many as three people at a speed of 35 miles an hour, the total weight lifted in this instance being 1234 pounds. The No. 22 machine of this type, fitted with an 80-horsepower motor, made the fastest time at Reims, covering 6.21 miles in 7 minutes 47 4-5 seconds at an average speed of 47.78 miles an hour.





THE MODERN DIRIGIBLE IN FULL FLIGHT, RUTHENBERG TYPE.

THE DIRIGIBLE OF TO-DAY.

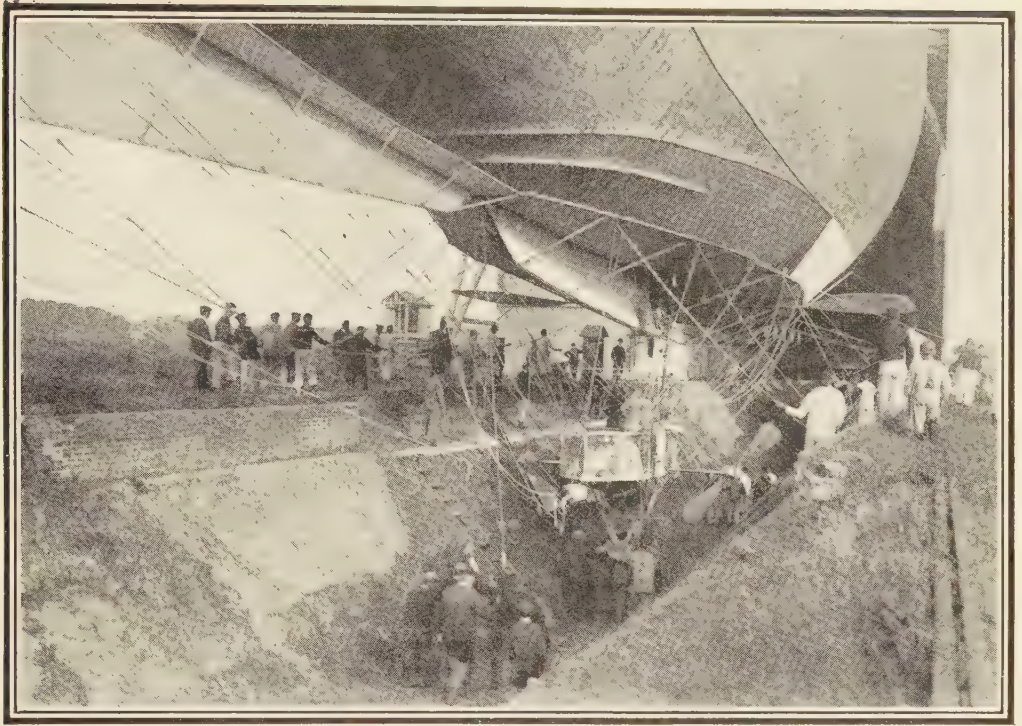
THE CONSTRUCTION AND PERFORMANCES OF THE "LIGHTER-THAN-AIR" FLYING MACHINES.

BY T. R. MAC MECHEN AND CARL DIENSTBACH.

THE well-known voyages of Count Zeppelin's airships of his name, of which there is a record of more than 200, have ranged from one hour to 36 hours and covered distances of 50 to 900 miles. The ship has always returned to her sailing port at Friedrichshafen within three days, the time of the longest voyage. All the new improvements in airships that give an idea of what may be expected are those developed in this "rigid" dirigible. That greater improvements are projected is seen in the preparations for carrying passengers over Germany; such a service will begin next year. More than four million marks have been subscribed by private individuals to the enterprise of the Zeppelin Company. That the undertaking is perfectly practical will be understood when it is known that during the past summer the *Zeppelin III.* repeatedly carried fifteen passengers and a crew of six on voyages of 200 miles in less than seven hours. It was done with two motors of 150 horse-power, which drove the craft at an average speed of 35 miles an hour. Now, the *Zeppelin III.* is very little longer and not much greater in circumference than the *Zeppelin II.*, which has transported twenty-seven pas-

sengers for over two hours. The difference in their sizes shows at once how rapidly the carrying capacity and the radius of an airship's action increases with any enlargement of the hull. As a development of that fact two larger ships, the *Zeppelin IV.* and the *Zeppelin V.*, are being constructed at Friedrichshafen, at the point of buoyancy and speed which will enable them to carry thirty passengers from Frankfort to Berlin, a distance of about 280 miles in an air-line, in about seven hours. These ships will be approximately 480 feet long, with a beam of about 50 feet, and carry two motors, each of 200 horse-power.

Trips of that nature will be possible for any dirigible with a permanently taut hull, especially in view of important improvements now being made in these new Zeppelins. Recent discoveries by Professor Hergesell, of Strassburg University, and other German scientists give an entirely new aspect to the practical possibilities of the airship. For instance, a way has been found to always hold the airship's supply of gas at its normal lifting power by preventing any change in its temperature. It is accomplished by turning the hot exhaust from the motors into the



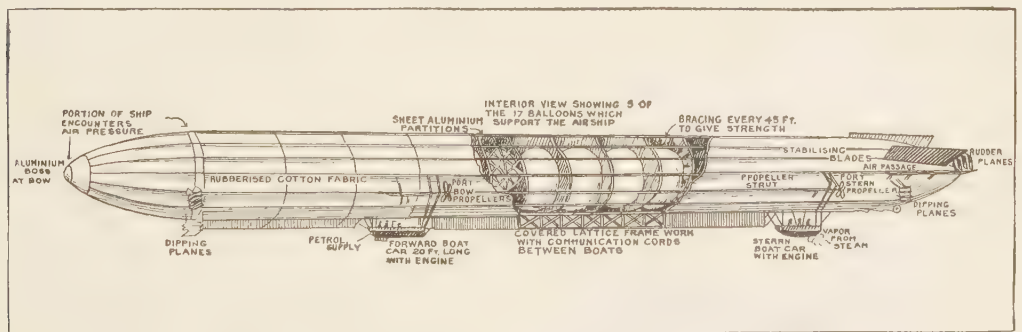
UNDER THE HULL OF THE FRENCH MILITARY DIRIGIBLE "LA REPUBLIQUE."

(The broken propeller ripping the bottom of the hull allowed the gas to escape, thus causing the wreck of *La Republique* on September 25, in which four men lost their lives.)

inside space surrounding the gas-chambers. Ventilation is thus furnished, which counteracts heat produced by the radiation of the sun; the air-space is also kept at an even temperature, in which the gas does not shrink or lose its power to keep the ship afloat. To avoid setting fire to the hydrogen in the chambers any unexploded gases in the motors' ex-

haust are burned in an asbestos furnace before they pass into the hull. The ship's radius of action will thus be limited only by the supply of fuel it can carry; the new plans provide for saving the fuel.

Airships designed for offensive military operations will be designed larger than those built for commercial purposes, because they



EXPLANATORY DIAGRAM OF THE ZEPPELIN AIRSHIP.

(This drawing, which is reproduced from "Aerial Navigation of To-Day," by Charles C. Turner, gives a very clear idea of the construction of the famous dirigible balloon which has remained for some time the only rigid type extant. The object of dividing the gas into seventeen compartments was to retain the vessel's efficiency even should one part of it become disabled.)

must navigate at greater altitudes to be beyond the point-blank range of artillery fire. The reason for enlarging them is that they must have more space in which the gas can expand when they rise into the lower air-pressure of the higher regions. An airship intended to make an attack will fight from 1650 yards for its own protection, but it must watch the fluctuation of its gas-supply. It is perfectly feasible to do this by inflating the chambers to only a fraction of their capacity before ascending; this provides for the expansion of the gas to its highest lifting capacity at the very time it is in the midst of an engagement. The ship is so large that, with the assistance of the horizontal rudders, it can lift its full complement, without losing stability or speed. Its attack will always be rapid and of short duration because of the effective execution it may be expected to wield with the guns that have been developed by the Krupps for the use of airships.

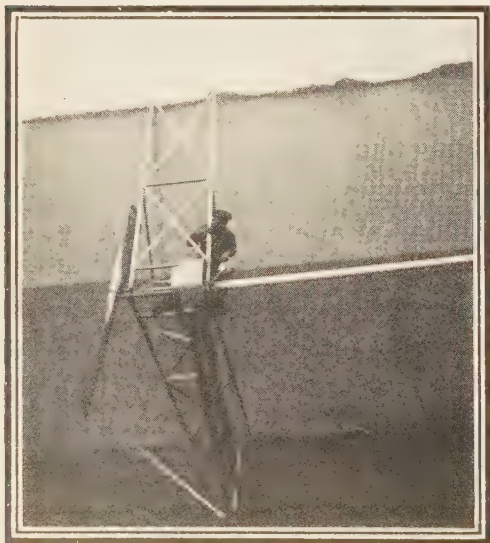
There is still another feature of the aerial battleship that is being considered in Germany. It is the motor which is being changed to operate at altitudes above 1650 yards. The present motors used in all airships were built to operate on the ground; all of them begin to lose power at high altitudes. This has called for motors that can operate in rarefied air; the new type which is now being developed will have larger cylinders to perform the same work that smaller cylinders do on the ground. The explosions of rarefied charges are less violent than normal

explosions, consequently the motors of the war airship will be lighter in weight for their horse-power as compared with those working on the ground. Built of lighter metal, the aerial motor will be larger, but lighter and weaker, than the same motor on the ground, because in higher altitudes it will be subjected to less strain. When the airship descends under power these high-altitude motors will be throttled and the mixture of gasoline weakened so that they will not fly to pieces near the ground. The scouting airship will be able to avoid straining either the gas or the motors, since it can operate at much lower altitudes, because this type of airship, entirely distinct from the fighting craft, can make its observations from greater distances than if it were maneuvering to make a well-directed attack.

The highly developed modern airship in Europe presents no such appearance as the small American dirigible; it does not bob up and down and experience difficulty in keeping a straight course. It is heavier and larger and cannot be tossed about by winds which affect the largest type of American airship. If the power that is applied to drive one of these large ships,—even that of a motor of 80 horse-power,—was crowded against the short length of a lightly built American dirigible it would buckle in the center despite perfect tautness. Yet non-rigid and semi-rigid ships, such as the *Republique*, *Parseval*, and *Gross*, are operating with 200 horse-power solely because of the size and strength of their hulls.

Recent achievements of the airship have been entirely due to the development of its hull along the lines of inertia and momentum of great masses. Though lighter than air, the Zeppelin is so massive that it has the inertia of a wooden log whenever the ship heaves to in the wind. Its propellers slip for five minutes before they start the huge bulk; but once under way the momentum of its long heavy body overcomes any resistance from the air. The Wrights have used the same principle in their flying machine. Voyages by the Zeppelin have shown that the very largest hull will safely carry the heaviest loads, at high speed, over the greatest distances. This is so clear that designers of all other types of dirigibles are steadily increasing the size of the hull, and with it the power of the engine.

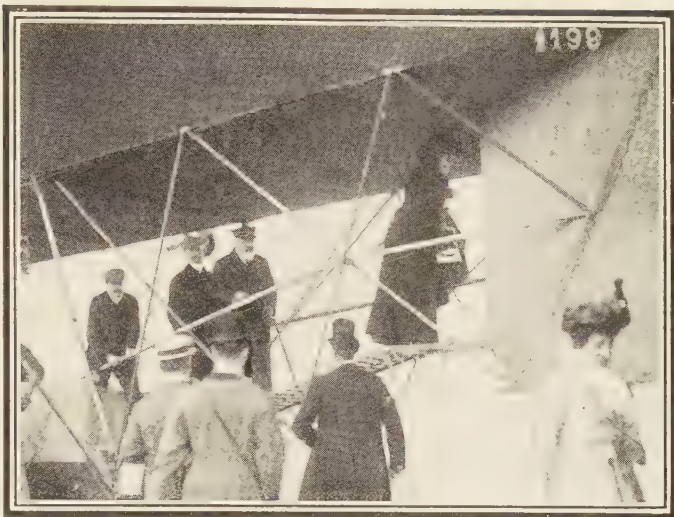
The modern dirigible has either a solid hull stuffed with gas bags or a single balloon hull that collapses when its vents are



ONE OF THE PROPELLERS ON THE "ZEPPELIN III."

opened for the gas to escape. They are rigid and non-rigid airships. Up to now the Zeppelins are the only rigid ships of the air. *Parseval III.*, invented by Baron Parseval, of Germany, and the *Ville de Paris*, now in the service of the French Government, are the most successful non-rigid dirigibles. After a flabby craft of that type has been stiffened with a frame stomach it becomes semi-rigid, a purely French style, highly developed in *La Republique*, which was recently destroyed. The *Gross II.* is the only semi-rigid airship in German military service; it has slight advantages over the French type from which it was copied. That completes the list of great airships which have contributed to the most recent progress of the dirigible. An intelligent idea of what they promise for the future will be gained by understanding their different construction.

Now it is impossible for an engine to drive a spherical balloon; its lighter gas bag will always be either ahead or behind the loaded car. The reason is simple. It is because of the irregularity between the driving force of the engine and the resistance of the air. The basket begins to swing like a pendulum. A non-rigid dirigible acts in the same way when the car is suspended far beneath the gas bag. If the car swings, the sharp point of the bag is tilted up; instead of the point cutting through the air, the bag drags through the air with its belly. This being the type of the standard French dirigible, it becomes a compromise between a real ship and a balloon. A balloon is the reverse of a ship. To offset the pitching of the hull, French builders adopted the frame stomach, which permits carrying elaborate devices,—stabilizing or steadying fins of metal frames and canvas surfaces. They keep the hull in a horizontal position while in flight. The car is suspended closely to the edges of the rigid stomach, which prevents it from swinging. Vertical rudders, fastened at the extreme rear end of the stiffening frame, turn the craft to right or left. Other horizontal and vertical planes sewed to the stern of the bal-



PASSENGERS BOARDING THE CABIN OF THE "ZEPPELIN III."

loon also assist in keeping it on a level keel. An aeroplane effect is obtained in this way, the balloon being converted into a flying-machine. Tilting the planes downward, so that the air-current strikes the top of the planes, sends the airship toward the earth at steep angles. Elevating the planes, to permit the air to strike them underneath, sends the ship skyward. When the craft is being driven at a certain speed the aeroplane rudders are given a lifting force that carries the ship up faster than the buoyancy of its gas.

These navigating devices act perfectly and go far toward solving transportation by air, except for the most important consideration in managing a dirigible. This is the gas, the chief supporting power. Its buoyancy constantly changes with the alternate heating and cooling of the atmosphere. The sun's heat expands it; the shadow of a cloud causes it to shrink. In a non-rigid dirigible even the horizontal aeroplane rudders cannot prevent the ship from rising on a hot day above the level where its lifting power and its own weight are balanced.

Though the Parseval is a simpler adaptation of the ordinary balloon than the French airships, it is more remarkable, because it is probably the last extreme of ingenuity man will ever reach in trying to convert a balloon into a ship. This masterpiece of engineering science is merely an elongated balloon tapering from an egg-shaped bow to the stern. It is the only dirigible that can be packed into a small space like a spherical balloon. Stabilizing fins and rudders of cloth sewed

directly to the hull only reveal their true purposes after the bag has been inflated. Even the propellers are cloth, stiffened by frames of light steel tubing; they hang shapeless until the steel arms that carry them begin revolving. Then the cloth blades stand out suddenly like the fingers of a glove that have been blown taut. In the place of stabilizing planes the ship is trimmed horizontally by pumping an equal amount of air into two balloonets placed in the interior of the hull, at the bow and stern. Pumping a greater amount of air into the front balloonet inclines the bow; then the craft is driven down against the buoyancy of the gas. But it must move in spirals to descend, because the car is hung far below the hull. In other words, its center of gravity is very low.

This car weighs 5 tons and carries a mass of machinery, which includes two motors, each of 110 horse-power, and having six cylinders; there is also a centrifugal pump for supplying air to the ventilator that serves the balloonets.

The definite purpose of the modern dirigible is to carry useful loads over great distances, but this cannot be done unless the supply of gas is kept at its normal buoyancy, exactly as the ocean liner's is fixed, that it may not only float but make voyages on nearly a time schedule. Navigators of airships have no idea of becoming balloonists. Their idea is a craft that will behave like a ship on the water. The Zeppelins are a great advance in that direction; their designer

threw overboard all "flabby" construction. He built a solid ship filled with gas chambers. Packed away in its hold as storage, they are protected by the air-space between them and the outer hull from the force of air-currents and from changes in the sun's radiation, which exhausts the gas. It has resulted in a near approximate to a fixed supply, sufficient lifting force having been retained in the chambers for more than three weeks. This fact explains Count Zeppelin's long voyages. Inclosing these gas bags within the hull eliminated the rocking of the gas, which makes the progress of the airship so uncertain; consequently it is not necessary to strain the gas bags by blowing them up with air-bladders. The entire absence of this internal pressure, which diminishes the lifting force and subjects the envelope to tension, has kept the gas bags so tight that they hold their supply to a higher degree than ever heretofore. All this means wonderful economy of effort, a greater radius of action, and a longer time of usefulness.

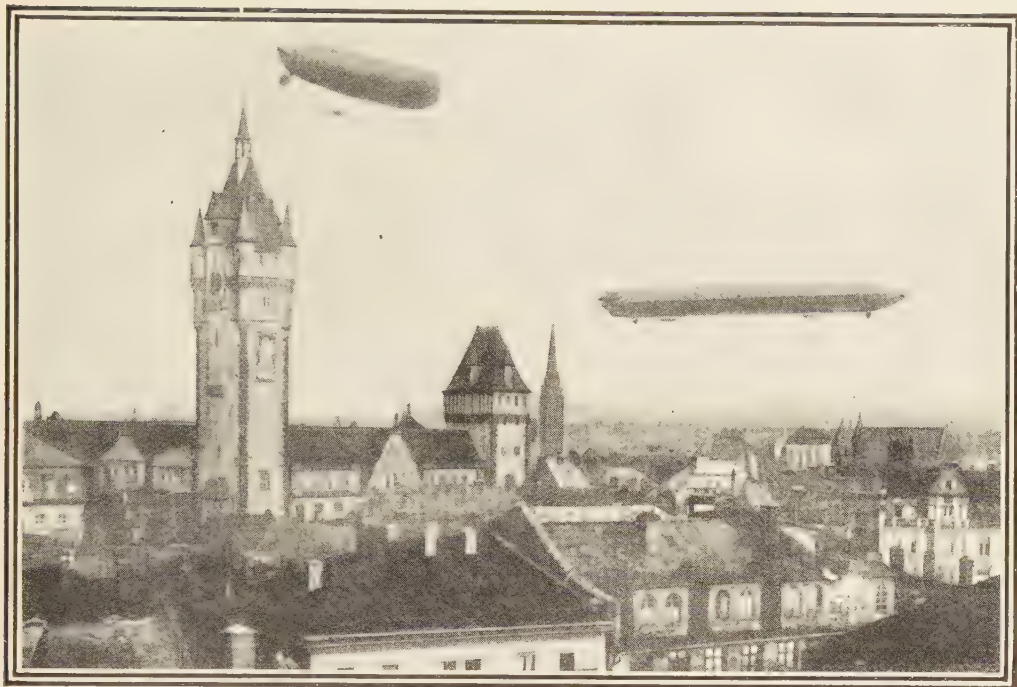
In discarding the flexible hull of all other air-craft the intention was to carry a useful load of 4 to 5 tons, according to the sizes of the ships then designed. The cylindrical hull was fashioned on straight lines, because practice proved that straight lines in an airship gave greater speed and stability in the air than curves; the craft was easier and less expensive to construct, since the front and rear halves were exactly alike. The lengths of the hull were limited to 410 and 445 feet in the sizes that have been constructed, thus

avoiding danger of dislocating the skeleton, which has a buoyancy of 12 to 14 tons. There are seventeen drum-shaped compartments inside the aluminum skeleton, which is built of many octagon metal rings joined by heavy wire cables and a mass of lighter bracing. A weatherproof skin or envelope of the toughest balloon cloth encases this skeleton. Each gas-compartment is entirely separate and is inflated independently, like the watertight compartments of the ocean liner; if one or more of these compartments burst or were perforated



THE BRIDGE OF THE "ZEPPELIN III." CAR.

(The switchboard for directing operations is seen in the rear.)



"ZEPPELIN III." AND "PARSEVAL" OVER THE CITY HALL OF FRANKFORT-ON-THE-MAIN, GERMANY.

by a missile the chambers remaining intact would prevent the ship from sinking until ballast could be cast overboard, thus restoring the lost buoyancy.

A remarkable confirmation of precisely such an accident was seen in what happened to the *Zeppelin III.* and *La Republique* in September; it reveals the action of the rigid and non-rigid dirigible in case of the same mishap during either war or peace. With the bursting of *La Republique's* propeller, one of its flying blades passed like a missile through the hull. What happened was practically an explosion. The internal pressure of the air balloonets on the single envelope holding the gas tore the wound larger than the puncture made by the blade; the entire volume of gas blew off like steam from a bursting boiler, instantly leaving the heavy car and frame stomach without any support. It crashed to earth like a rock. At the time of the accident the ship was so low (300 feet) that its crew might have had time for a reasonably safe landing,—even in case of fire. Exactly the same accident happened to the *Zeppelin* on its recent return from Berlin to Friedrichshafen. The broken blade of a revolving propeller was hurled through the hull and punctured one of the seventeen gas

chambers; the ship did not make an immediate landing because even after the ruptured chamber was empty the sixteen remaining cells kept the craft afloat. The percentage of lost buoyancy was made up by dynamical support from the motors and by inclining the horizontal rudders. The ship flew 50 miles until it arrived over a town where there was material for repairs.

In building its hull on the lines of a submarine the designer immediately removed many puzzling problems that belong to the balloon; it permitted the use of rudders having greater efficiency than those on any other type of dirigible. Four horizontal rudders fore and aft on each side of the hull are simply elementary flying machines with three decks; they allow the long axis of the ship to instantly incline either up or down. What is of greater importance to the question of saving the buoyancy is that they raise and lower the ship entirely by their aeroplane effect. Their lifting effort is more than a ton. The action of these rudders alone has raised the ship 1950 feet into the air, taking the place of casting more than 1200 pounds of ballast from a balloon. Although small in comparison with the hull, its stiff frame permits the rudders to stand out from the craft,

where they catch the strong current from four propellers revolving immediately in front of them. The Zeppelin's rudders bear the same relative proportion to the hull as the screws of an ocean line. Their first effect is nothing but continuous slipping. It is only after the ship has moved perhaps 80 yards that one realizes a horizontal movement has started imperceptibly. The craft gets under way as slowly as the *Mauretania* being pulled out into the Hudson by tug boats. Its speed increases gradually, but it recedes exactly like a big steamer. Two stabilizing fins fixed one above the other on either side of the hull at the stern act as the feathers of this immense arrow; they send the ship forward without the slightest deviation from the line of horizontal flight.

A single vertical rudder, simply a box-kite, is hinged between each of these sets of fins; all of the steering to starboard or larboard is done by them. Another large vertical rudder fastened directly to the stern remains immovable during flight, being used as a stabilizing fin to keep the ship on her true course. Aside from the motors and the cars, which are hung nearly 200 feet apart in the exact centers of gravity, this is the equipment of the most successful airship. Many steering wheels controlling the rudders are placed in the forward car near the navigating table. Two motors of 200 horse-power, one in each car, furnish the energy which drives the ship.

Other new devices make the equipment of the dirigible of to-day more certain than ever of fulfilling its task. Prof. H. Erdmann has invented a practical method of transporting liquid hydrogen in compact reservoirs aboard airships for a week at a time. The weight does not add anything material to the cargo. Losses of gas from the great chambers which support the ship can be replenished; two chambers can be wholly refilled from one reservoir. The ship need not descend to repair a chamber that has burst or has been perforated by a missile. All necessary material for performing this work will be carried aboard; the interior of the hull affords a suitable workshop, and during the progress of re-establishing the ship's lost buoyancy the decreased lifting power will be made up by the lifting effort of the

aeroplane rudders. In the new discovery has been found not only a way of preventing an airship from sinking but in maintaining the length of its voyages. German science is now engaged in solving the final problem in prolonging the stay of a ship in the air,—burning the surplus lift in the buoyancy.

For instance, the constant consumption of fuel lessens the weight with which the ship begins its voyage. As this burning of cargo goes on the gas chambers have less load to carry; consequently there is more buoyancy than is necessary to preserve a perfect balance between lifting power and weight. This is called the "surplus lift" in aeritime navigation. It has the effect of taking the airship up into thinner air, where there is a corresponding loss of lifting power and serious interference with the straight line of flight. Commercial operation of the craft demands that such a contingency must be overcome. Those who are laying the plans for this use of the airship believe they have found the solution. It is nothing more than drawing the "surplus lift" from the gas chambers and burning it as fuel for the motors. Hydrogen is highly inflammable and makes a good fuel. Whenever there is more gas in the chambers than is needed to keep the airship on a level keel, it could be drawn from the bags until the over-buoyancy was reduced. Theoretically, it is entirely feasible, and the evidence at hand seems to justify the expectation that a practical method will soon be found. As a development of the future it finally provides the airship with every qualification for perfect navigation that is possessed by ships on the water.

Commanding appliances that give greater motive power, higher speeds, and the ability to remain in the air for days instead of hours, the aerial man-of-war of the air-liner becomes either the most formidable engine of destruction or the most wonderful vehicle of travel that has been devised by man. The airship will soon have met every obstacle to complete conquest. Its range will be limited only by its size. The same reasons that have impelled nations to build *Dreadnoughts* and *Mauretania*s apply exactly to air-power, and point unerringly to stupendous machines.

HOW IT FEELS TO FLY.

BY F. A. COLLINS.

WE have no higher praise for any rapid or exhilarating locomotion than that for the time we have seemed to fly. The delights of flying are, of course, proverbial; they are even promised as a special reward in a future incarnation. A prayer for "the wings of the dove" has anticipated the aeroplane by many centuries. Actual testimony as to the long-coveted sensation is now for the first time available, and we have the assurance that our hopes are fully realized. While the number of aviators who have returned to us from the upper air is limited, their testimony, nevertheless, lacks nothing of enthusiasm. We have the impressions of expert mechanicians, who are naturally close observers; of laymen of widely different temperaments, including a distinguished novelist; even of royalty,—certainly a very catholic company.

WILBUR WRIGHT'S SENSATIONS.

"Flying is the greatest sport in the world," was Mr. Wilbur Wright's comment. The question as to his personal experience aroused him from his habitual reserve. "I can't describe the sensation," he continued; "I can only define it by comparison with more familiar experiences. It is like sledding, like motoring, like sailing, but with increased exhilaration and freedom.

"An aeroplane flight, contrary to the general impression, is far steadier than the familiar means of locomotion. There is absolute freedom from the bouncing of the automobile, the jar of a railroad train, or the rolling and pitching sensations of the sea. No matter how many springs or cushions may be added to an automobile, for instance, there will always be some motion. On the other hand, the seat of an aeroplane is always steady. The aeroplane does not jolt over the invisible wind currents, the ruts of the sky. It cuts its way smoothly. Even suppose the plane to be gliding so [indicating an angle of forty-five degrees], the seat remains fixed. There is, of course, no absolute parallel in surface travel. And since there is no roll or pitch to the aeroplane, there is no air-sickness comparable to the familiar seasickness."

All aviators seem unconscious of any element of danger. Even among the passengers

no one has confessed even to nervousness during the flights. Once aloft the exhilaration of the exercise banishes every fear. Mr. Wilbur Wright has flown with many passengers both here and abroad.

"After the first flight one has no thought of possible accident," Mr. Wright explained. "In all my flights I have never known a passenger to be frightened. One of my passengers, I remember, was greatly disturbed for fear that, in our downward drive, we would hit a man who happened to be in the way; but he was a beginner and did not understand the control of the machine. One soon becomes accustomed to the levers and finds plenty of time to look about and enjoy the flight."

A PASSENGER'S REPORT.

The first comment of the aviators and their guests on alighting has been enthusiastic praise for the new sensation. All seem agreed that it is incomparable. The testimony of Lieut. Frank P. Lahm may be cited as a typical instance. Lieutenant Lahm is doubtless the most seasoned of aeroplane passen-



CLOUDS AS SEEN FROM ABOVE.

gers, besides being a balloonist of considerable experience.

"I have seemed to be floating on an element more liquid than air," said Lieutenant Lahm. "I felt something of the same soothing sensation while reclining on the deck of a fast ship on a perfectly calm sea. The sensation may be compared to coasting down hill on a bicycle, but without the fear of a cropper. The perfect smoothness of the glide of an aeroplane, however, is far more delightful than any similar experience.

"The flight of an aeroplane is so steady, so free from vibration, that one loses all sense of motion. Much of the time during these flights I have had the impression that we were standing still and that the earth and sky were gliding past. One of the most surprising things about an aeroplane flight is the way the time seems to fly. Except that my legs have grown stiffened from sitting in the same position I have had no idea of the passage of time. I have been up more than an hour when it seemed but a few minutes."

Several aviators have remarked the peculiar and somewhat awe-inspiring effect of passing swiftly above the heads of crowds, particularly when the faces are upturned, as is likely to be the case. It will come as a surprise to most laymen to learn that conversation may be carried on with the earth up a height of 2000 feet, or even more. The aviator as he rushes along may hold fragmentary conversations with hundreds of people.

"The presence of a crowd," said Lieutenant Lahm, "lends new zest to the flight. In passing over great groups of upturned faces, say at an elevation of sixty feet, it is possible to recognize people, to pick out a particular face, without the slightest effort. The cheering comes up to one deafeningly. When I accompanied Mr. Wilbur Wright on his record-breaking flight there was plenty of cheering, but toward the end of the hour the crowd became silent. We glided over the great crowds again and again without a sound reaching us. When the little clock before us told that we had passed the best previous record a great wave seemed to move over the sea of faces and the cheers and automobile horns raised an awful din. Such applause coming up to us from so unusual an angle was a sensation never to be forgotten."

In its present stage of development the whirring noise of the aeroplane propellers is an important factor. The noise is deafening. Conversation is practically out of the ques-

tion. Doubtless in time this will be remedied. An incident of Lieutenant Lahm's trip at Fort Myer will give us an interesting glimpse of the life aboard an airship. Just before the close of the hour which marked the best previous record Mr. Wright turned to his guest and shouted:

"I'm going to try for the record!"

The two passengers sat side by side, not more than two feet apart, but Mr. Wright was obliged to repeat the remark twice at the top of his voice before he was understood.

THE DELIGHTS OF AEROPLANE FLIGHT.

"One has not lived until he has flown," is Mr. Glenn H. Curtiss' conclusion. Equally enthusiastic is Mr. Curtiss' partner, Mr. A. M. Herring. "The smooth glide of an aeroplane is incomparably the most exhilarating sensation in the world," said Mr. Herring. "You have the impression of moving with a swallow's swiftness, of overcoming every obstacle without the slightest effort. You literally float over the earth. You gain something of this sensation in motoring under very favorable conditions. The car seems to carry you over hills, for instance, while you recline inert,—relaxed. On an aeroplane you have this sensation raised to a higher power. The sense of freedom in being free above the earth and in rapid motion and without support of any kind is indescribable.

"The gentle rocking of an aeroplane as the wings cut their way through the air currents again is a delight. I can imagine a person extremely sensitive to seasickness affected by this motion in a long flight. We may have air-sickness just as to-day we have seasickness. The undulating motion of the aeroplane and the pitch and roll of a ship at sea are not dissimilar.

"There is endless variety in an aeroplane journey. The aviator learns to make an entirely new set of observations. Much depends upon the air currents, and the aviator must learn to read the signs of the sky. He must anticipate the approach of an air current by observing its effect on the tops of distant trees or the surface of bodies of water. The direction of any floating smoke on the horizon or fog or mist gives the pilot the direction and force of the wind."

Aviators are already divided as to the comparative merits of aeroplane and balloon flights. What endless discussions are not foreshadowed? The preference for one form of aviation over another is largely a matter of temperament. Lieutenant Lahm, himself



PEMBERTON, OHIO, AS SEEN FROM THE UPPER AIR,

an experienced balloonist, is loud in praise of the aeroplane.

"For the first time in my flights," he said, "I had the impression that I was actually covering ground. From a balloon the earth seems to drop away. You seem to be standing still while the cities pull themselves together and disappear. The aeroplane, since its flight parallels the ground, gives one an entirely different sensation. There is an exhilarating sense of progress. Then, again, a balloon trip is made in silence, while from an aeroplane you are constantly in touch with the earth."

ADVANTAGES CLAIMED FOR THE DIRIGIBLE.

The balloon has an enthusiastic champion in Mr. A. Leo Stevens, whose conclusions are drawn from very wide experience. Mr. Stevens has made more than 1700 gas flights, and has taken aloft ten times as many passengers as any other sky-pilot, licensed or otherwise.

"There is a sense of freedom and of quiet progress about a dirigible balloon flight," said Mr. Stevens. "A dirigible flight gives you

ample time to enjoy your journey. You float along at a comfortable fifteen miles an hour or so, and the great panorama beneath you unfolds itself gradually. You have time to enjoy the marvelous scene and the curious unexpected effects of perspective from this point of view. A balloon trip is free from all sense of hurry.

"An aeroplane, on the other hand, carries you along at an express-train speed of forty miles an hour or more. The earth is swept past you with bewildering rapidity. As a rule, an aeroplane does not rise to any great height, and you rush along comparatively close to the ground. There is little chance to look about. You have none of the extended views possible from the higher altitudes traveled by balloons. A ride by dirigible may be compared to an old-fashioned coaching trip,—when you roll smoothly along and, from your elevated seat, command a view of the surrounding country. An aeroplane flight is more like the dash of a limited express train, with fleeting glimpses of the scenery.

"An aeroplane seat is cramped, and you

hold on for dear life. The basket of a balloon or the staging of a dirigible gives you room to move about. You can keep a log of your progress trip and eat your dinner; even sleep with perfect comfort. There is, besides, a far greater sense of safety in a balloon, contrary to a very general impression. Personally I am greatly distressed by height. I cannot stand on the edge of a high building for fear of falling, but I feel perfectly comfortable at any altitude in a balloon. The wind eddies about a high building and, as you imagine, threatens to pull you over. It is much the same with an aeroplane. A balloon, traveling with the wind, is absolutely free from this sensation.

"It is a common impression that, viewed from a balloon, the earth seems to be standing still. This is, however, only a first impression. I have had many passengers remark this effect, while as a matter of fact we were traveling a mile a minute. The altitude is deceptive. But if you look directly downward from a balloon the effect is magical. The farms, towns, and cities glide past quickly, silently. From an altitude of 1000 feet or more all the scars on the landscape are invisible. The marshes or barren tracts are all blended in beautiful color-schemes. Such a flight is beyond any question the most delightful experience in the world."

The extended flights made by Count Zeppelin in his great dirigible balloon have proved that such travel is by no means exhausting, and certainly not monotonous. It will be recalled that one of these flights was more than thirty-six hours in length. Such a journey by rail or by boat would be tiresome, to say the least. Count Zeppelin described the trip as restful throughout and entirely free from the strain of ordinary travel. His enthusiasm for the new sensation has led him to organize a line of airships for passenger traffic. He believes that, once experienced, there will be plenty of patronage even at a very high rate for transportation, and that any one who has experienced the delights of an air flight will never again be content

with the more commonplace means of transportation.

Not the least pleasure of flying, common both to the dirigible and aeroplane journeys, is the cordial relation which the airship seems to establish between its passengers and the entire countryside. The traveler in the sky is everywhere an object of sympathetic attention. He may enjoy, if he choose, the hospitality of every house in the vast panorama beneath him. Invitations to descend for a meal or a lodging, the use of the horses, automobiles, anything he may desire, are shouted to him continuously mile after mile. But let the traveler descend and attempt to retrace his journey by automobile and the same people will treat him with indifference or distrust.

HEALTHFULNESS OF AIR VOYAGING.

The healthfulness of the upper regions of the air, whether visited by aeroplane or balloon, must be included in any description of this new experience. We readily undertake a journey of hundreds of miles by train, boat, or automobile to reach a higher altitude where we may breathe cooler and purer air. The airship rises to the altitude of the mountain top in a few minutes. Looking well into the future, Rudyard Kipling has described the hospital airships with their decks crowded with tuberculosis patients gaining new life from the upper air lanes.

The experience of Mr. A. Leo Stevens during many flights is a case in point. "As one ascends rapidly, especially on a damp, depressing day," said Mr. Stevens, "the relief to one's lungs is soon noticeable. The air becomes more rarified with every breath. I have felt something of the same sensation in ascending a high mountain. I have started several times on flights suffering from a severe cold when I have noticed that my head has cleared after a few hours spent in the high altitudes. Incidentally one never takes cold on a balloon trip. I have been wet through by passing storms and almost frozen, but I never return to earth with a cold. There are no microbes in the upper air lanes."



THE HUDSON-FULTON ART EXHIBITION.

BY ERNEST KNAUFFT.

THE most important art exhibition New York has ever seen is the one now being held at the Metropolitan Museum of Art in connection with the Hudson-Fulton anniversary. Some thirty-seven Rembrandts are shown, together with twenty canvases by Hals, and over a hundred other examples of Dutch painters of Hudson's time; as well as with a collection of Colonial furniture and examples of the industrial arts made prior to Fulton's death, 1815, and a number of paintings by American artists born before 1800.

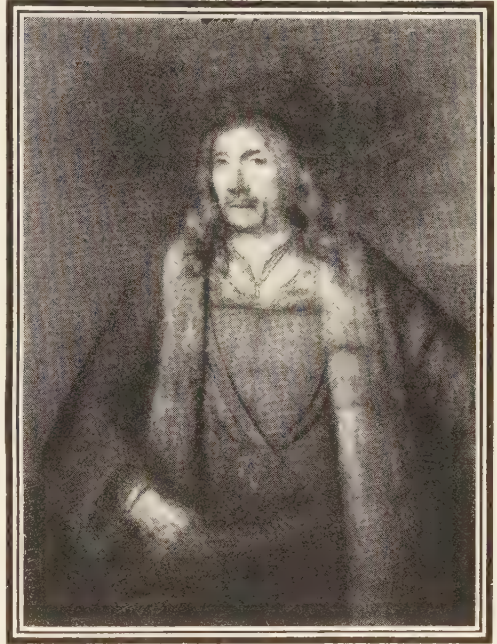
It is a revelation to learn that so many masterpieces of Dutch art are owned in this country. The Rembrandt portraits, rich in the Dutch master's marvelous chiaroscuro, dominate the exhibition, proclaiming the artist's stupendous understanding of form.

The silver made by Paul Revere (and by his father, a Frenchman, Appollos Rivoire, who was taken to Boston when a child, and there set up as a goldsmith and silversmith, in 1723, anglicizing his name to Paul Revere) proves that the celebrated hero of the "midnight ride" was as adept a craftsman as he was a horseman.

The beautiful flowing lines of the Colonial furniture, especially of the complete set by the New York cabinet-maker Duncan Phyfe, convince one that our Knickerbocker forefathers did not live amid the rough-hewn surroundings of the pioneer.

A WONDERFUL REMBRANDT COLLECTION.

While the majority of paintings in the exhibition are masterpieces there are a few special ones that stand out above their fellows as complete and finished pictures, perfect in drawing, color, and in light and shade. Let us select a few of these for consideration. First there is a "Portrait of a Man" by Rembrandt, owned by Mr. James Ross, of Montreal. We give an illustration of this canvas, but of course our tiny print does not show the beautiful dull red coloring of the costume, nor the fine passages of modeling about the mouth, nor the liquid quality of the eyes. Rembrandt is celebrated for the way he painted eyes, but he seems to have



"PORTRAIT OF A MAN" (1665).

(A superb Rembrandt owned by Mr. James Ross. A magnificent piece of coloring, rich in walnut browns and mahogany reds; the eyes are painted as only Rembrandt could paint eyes.)

outdone himself in this portrait. In it there are almost all the qualities that go to make a great picture; that is to say, the figure is lifelike and full of character; it seems to be standing within space, surrounded by light and air and not flat against a wall, while the whole canvas makes a decorative color unit that charms us, aside from its qualities as a graphic and vivid portrait.

Another picture that has exactly the same qualities is Rembrandt's portrait of his son "Titus" (from the Kann collection recently purchased by Mr. Altman and added to the collection after the exhibition was opened). The Ross "Portrait of a Man" was painted by Rembrandt when he was about forty-nine years of age. Compare it with earlier canvases shown, like the "Nicholaes Ruts," and the portraits of Rem-



"A YOUNG PAINTER" (JAN VAN DE CAPELLE?), BY REMBRANDT.

(Owned by Mr. J. P. Morgan. An example of the artist, typical in chiaroscuro and sentiment.)

brandt owned by Mr. E. D. Libbey, Toledo, and Mr. F. G. Logan, Chicago, all painted when the artist was twenty-five, and the "Noble Slav," painted when he was twenty-six, and we see a decided difference. True, the earlier works are decidedly Rembrandtish; the "Noble Slav" especially has that well-known superabundance of volume, that effect of air surrounding the figure that we associate with Rembrandt; and the eye follows its surfaces plainly as though it were some heroic-sized statue. But with all these qualities there is not that looseness of touch, that evasive suggestiveness, that freedom that allows the accentuating of some portion of the form here, the obliterating or putting down of some detail there, simply because the artist felt that such accentuating or repression would enhance the general effect of the canvas. These touches come only when the artist matures, and they defy analysis because they are done without rule or law, the artist impelled by feeling only.

These qualities are found in other late canvases and such as "A Young Painter" (Jan Van De Capelle?), painted when Rembrandt was forty-two, and the large "Portrait of Himself," owned by Henry C.

Frick, painted when the artist was fifty-two. This great canvas is a rather brutal presentation, perhaps, but a vigorous realization of personality; it shows the painter decked out in some fancy costume from his studio, ready to defy the world that had begun to ignore him and his art. Again we find these qualities in the "Portrait of a Man," owned by the Metropolitan Museum of Art, referred by the catalogue to 1665, when Rembrandt was fifty-nine. This, and the smaller Metropolitan Museum portrait No. 106, also painted at fifty-nine, hold remarkably well in this exhibition, as does the "Portrait of a Girl (Hendrickje Stoffels?)," owned by the Art Institute, Chicago. This canvas is exceedingly low in tone, more tender than the average Rembrandt. There is a beautiful play of light and shade about the subject's head which melts into the background in the most delightful manner. In this painting there are no rude passages.

A SCORE OF HALS CANVASES.

In the portraits by Hals we are first struck with the display of technical mastery. Hals is an out-and-out virtuoso. There are several canvases that show this virtuosity, especially "A Boy Playing a Flute" and "Singing Boy." These represent Hals' magnificent



"PORTRAIT OF HIMSELF," BY REMBRANDT.

(Owned by Mr. Henry C. Frick. A portrait much admired by artists because every brush stroke shows Rembrandt's understanding of form.)

power as a sketcher. "The Boy with the Flute" is a small canvas showing but the head and hands of an animated musician, and is almost without blemish. It seems as though pigment and brush could hardly produce more vividly the counterfeit of life. One feels that the artist's eye had perfect vision, and that his hand had responded in perfect harmony with that vision. Rembrandt is rarely a facile workman; in his work we see brownish shadows that are not fully defined, tones that have been worked over as though he was never quite sure of their correctness; but in this Hals "Boy Playing a Flute" it seems as though the painter from beginning to end obtained his



"PORTRAIT OF A LADY," BY FRANS HALS.

(Owned by the Metropolitan Museum of Art. A superb example of Dutch portrait painting, the brush work perfectly free, yet the modeling of all the details of the drapery is careful and realistic.)



"BOY PLAYING A FLUTE," BY FRANS HALS.

(Owned by Mr. E. D. Libbey; a mere sketch but a marvelous example of brush work and warm coloring. A veritable lesson in painting.)

effect *a prima*; as though he never for a moment was uncertain of the exact shape, the exact color, the exact value, that a shadow should be; as though he had no trouble in mixing upon his palette the tints to correspond to those colors and those values, and that having mixed the pigment he put it on to stay. Hals, Rubens, Valasquez, and our own John Sargent have shown the world the right method of painting in oil.

There is another Hals, the portrait of "Dorothea Breck," wherein we find the easy painting of a gloved hand, that also reaches the high-water mark of technical dexterity. It seems as though brush-work could go no further. But in this portrait the face, while a fine piece of characteriza-

tion, is not painted with the same looseness of touch, nor the lusciousness of color, as is that of "The Boy with the Flute," and the hair is particularly unattractive, being flat and wiry in treatment.

So we turn with greater satisfaction to two "official" portraits by Hals, the one of "Isabella Coymans" and the "Portrait of a Lady,"—erroneously called the wife of the artist, owned by the Metropolitan Museum of Art. In these two portraits we must remember that the artist did not have the freedom that he had in the "Flute Player." The latter he probably made for his own amusement and thus could paint it in any way he chose, but these two portraits were doubtless painted to order, and he was constrained to paint a portrait that would be pleasing to the sitter and to her family. He is evidently willing to give his sitters just what they want. Every bit of costume has interested him and he has painted it with an understanding of form that is as scientific as it is artistic, but at the same time the picture is fundamentally a portrait and not a still-life study. The lace collar covers a human shoulder and the cuff a human arm. The characteristics of the subject's figure ("Isabella Coymans" is



"LADY WRITING," BY J. VERMEER VAN DELFT.

(Owned by Mr. J. F. Morgan. A perfect example of genre painting; though a trifle faded, it is still a canvas full of beautiful color—tender blue and yellow.)

a young girl of about twenty-five, whereas the Metropolitan Museum's canvas is of a woman of fifty) are given with as much anatomical correctness as an art school prize-winner obtains in his "Academy" studies.

It is not many years ago that the custom prevailed in America of a portrait painter finishing the head entirely from his subject, but only sketching in the hands, and employing a model to pose for the hands while he finished them. The result was that the hands lacked the character that matched the face. It was also the custom to have a sitter send her gown, or a man to send his frock-coat, to the artist, which the artist would put upon a lay figure and then finish the portrait. The result in this case was that the figure of the portrait was not in harmony with the head. One cannot conceive of Hals following this procedure. He never slurred over the detail of the costume, but the costume always covered the figure that "went with" the head and hands of the sitter. Both "Isabella Coymans" and the Metropolitan Museum portrait (No. 40) are perfect examples of this unity of costume and figure. There is not, however, as successful painting in the head and hair of the "Isabella Coymans" as there is in the old lady. The head is somewhat flat and the hair stiff and they do not melt into the background as they should.

This flatness is observed in the "Portrait of a Man," No. 35, which, while a perfect piece of characterization, so far as the drawing is concerned, is cold in color; hanging as it does near the Ross Rembrandt we feel its flatness and coldness by contrast with the mellow Rembrandt.

WORKS BY VERMEER AND TERBORCH.

A third name in Dutch art is that of Vermeer Van Delft. He was not a great genius like Rembrandt, not a seer who was contemplating broadly the whole of humanity, but he was an observer of form, light, shade, and color, and a composer of pictures that rank high in the world's art. The art of Vermeer, like that of Hals, is strikingly modern in treatment. There are said to be but thirty-six authenticated paintings by him, of which seven are in America, and six of these are in this exhibition! Three of these have particular charm. "The Lady with Lute," the "Lady Writing," and "Girl with Water-Jug," owned by the Metropolitan Museum, are all pictures with the single figure of a woman surrounded by carefully painted still-life. They introduce us to a glimpse of Dutch life that is calm, contented, comfortable. The painting is exactly what genre painting should be; that is to say, the trivial occupation of the subject and the commonplace objects that surround her are made beautiful by the painter's interpretation of form and color. They are not too large, never over twenty by twenty inches, and the figures and still-life are beautifully placed, so that the composition has a decorative balance of mass and color.

We may best appreciate the perfect composition of the Vermeers by comparing them with some other genre pictures. For example, there is a picture by Terborch, "The Guard-Room," in which the coloring, especially that of the trumpeter's blue silver embroidered coat, is quite equal to Vermeer's, indeed as regards color this is perhaps one of the most distinguished canvases in the exhibition. But Terborch's composition is far from pleasing; the interest is almost entirely on the left, while in Vermeer the interest is equally distributed throughout the picture. Again, while another Terborch, "Portrait of Young Man," contains a background and some still-life that is fine in local color, yet in it every object is provokingly separated from its fellow. There is no light and shade playing through the picture to destroy its flatness and to take

away from the monotony of the painting. Each object looks "cut out."

A GROUP OF LANDSCAPES.

The landscapes and marines are for the most part of an art less highly developed than are the figure subjects. There are no surfaces on which light falls and air surrounds with as much truth as in the Vermeer still-life objects. The landscapes are fundamentally monotonous. Almost every one would be as satisfactory in a good photographic reproduction as it is in the original painting. With the memory of American landscape in mind the Dutch landscapes seem heavy and "impossible" in color. Forgetting for a moment, however, their lack of color, we may find in them evidences of the close observation of nature that reminds us that in Dutch art was the beginning of modern landscape painting.

The large Hobbema, "Cottage Among the Trees," is a noble presentation of Nature. The trees are effectively massed and the cottage showing through them is painted with more color perception than is usual in the Dutch landscape. Jacob Van Ruysdael's "Gnarled Oak," while so dark that it is



"A WATERFALL," BY JACOB VAN RUYSDAEL.

(Owned by Mr. Henry C. Frick. The Dutch landscapes are not such perfect art as are the figure subjects. In comparison with modern paintings they are heavy and black and dark, but they are frequently poetical and picturesque in subject, as we may see by this Ruysdael.)



ROBERT FULTON, FROM A BUST, BY JEAN ANTOINE HOUDON.

(The original marble is owned by the National Academy of Design; a bronze duplicate is shown at the Hudson-Fulton Art Exhibition.)

difficult to distinguish all its subject-matter, seems to rise above mere observation of superficial forms and to interpret rather a poetical mood of the painter.

AMERICAN PAINTINGS AND FURNITURE.

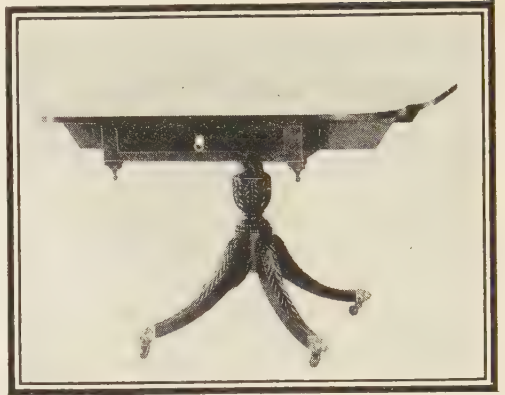
The American Section, consisting of over six hundred exhibits, contains paintings by artists born before 1800 and examples of the industrial arts dating from the earliest Colonial times to about the period of Fulton's death, 1815.

The early American artists were uneven workers, sometimes painting figures as stiff as wooden Indians, incased in tin drapery, again painting with a directness and an understanding of construction almost equal to Hals. And at times they show a rare sense of subdued color. The little miniature, "Portrait of Mrs. Huyer," by Washington Allston,

almost a monochrome, is exquisite in its low-toned color. The "Portrait of Mrs. Samuel Osgood," by John Trumbull, is also low in tone, a beautiful harmony of yellows and browns. A robust and well-brushed-in painting is Copley's animated "Portrait of Mrs. Fort"; his "Portrait of John Erving" shows a face splendidly modeled, though the figure is stiff and unyielding. Thomas Sully had more "style" than any other American painter, and his two portraits of "Mrs. Middleton Smith" and "Mrs. James Faillie (Maria Yates)" show that he could paint in a "large" manner. Benjamin West's "Portrait of Robert Fulton" is somewhat "hard," but remarkably firm in drawing, especially in the hands. The Malbone miniatures show pure and fresh color.

The furniture is highly interesting, especially if viewed with the help of the catalogue, with its valuable introduction and descriptions. Mr. Kent, writing in the catalogue, is not extravagant when he says: "Perfect in workmanship, proportion and feeling for line, Phyfe's best furniture, like that here shown, is worthy of a place with furniture of its class made in England."

The whole exhibition opened one's eyes to some significant facts,—namely, that when



MAHOGANY TABLE, MADE BY DUNCAN PHYFE.

(The simple curves of the top of the table, which might be cut by any country carpenter in half an hour, emphasize the fact that beautiful furniture need not be elaborate in its construction.)

the Dutch were settling Manhattan, Rembrandt and his contemporaries were painting some of the world's masterpieces,—and that later the Colonists were brought under European art influence when such men as Houdon visited this country; and, lastly, that our early native painters and artisans were men of no mean talent.



SILVER MADE IN BOSTON BY PAUL REVERE.

(The Revere silver, like the Duncan Phyfe furniture, teaches the lesson of the charm of simplicity.)

THE COMING MUSICAL SEASON.

BY LAWRENCE GILMAN.

NEW YORK is becoming musical.

The assertion is made advisedly. If one had examined in an analytical spirit the prospectuses put forth a decade ago by the management of the Metropolitan Opera House and the various concert organizations it would have been observed that, in the order in which the delights of the coming season were heralded, the music to be performed was invariably announced last and the persons who were to perform it were as invariably announced first. In the opera prospectus the names of the singers headed the list of activities; the titles of the works in which they were to appear emerged only as one scanned the more inconspicuous parts of the circular. So also in the case of the great orchestral organizations: first the formidable array of distinguished soloists,—singers, pianists, violinists,—whom the Philharmonic, or the New York Symphony, had been fortunate enough to secure, then the music which was to be played.

In following this procedure the managers and impresarios were shrewdly responding to the preferences and demands of their various publics. A decade ago,—even five years ago,—the average citizen preparing to purchase tickets for an opera or concert performance was chiefly interested to learn what singers were to be in the cast (if the performance were operatic) or what soloists were to enliven the concert program. Whether "Faust" or "Rigoletto" was the bill, or whether he was to hear the Eroica Symphony of Beethoven or the C-Major Symphony of Schubert, was to him a matter of secondary consequence. Those were the golden days of the soloist and the "star,"—the musical Era of Personality.

In those unregenerate times a manager would scarcely have dared to advertise a purely orchestral concert, with no pianist or fiddler to beguile and hold his audience; and as for the opera, it is well remembered that Mr. Maurice Grau used to affirm that if he wanted an empty auditorium at the Metropolitan all he needed to do was to announce a new music-drama for performance.

Things are different to-day. Take up the announcements sent out by the great orches-



MARIE DELNA.

(The famous French contralto, who will sing at the Metropolitan.)

tras. The works advertised for performance are not, to be sure, named on the front covers; but they are not, as in former days, listed casually at the end, or not listed at all. As for the soloists, they have not quite been banished, but they have ceased to dominate the prospect in the imperious and contemptuous manner of old. Indeed, the Boston Symphony Orchestra has within recent years dared to give several concerts in a season without the aid of a soloist, and the audiences have not rebelled, nor have they protested by leaving the hall; and this year the Philharmonic Society will dispense with soloists at a number of its concerts. But it is in the case of opera that the change has been most signal and astonishing. In the season of 1899-1900 at the Metropolitan no new work was given. For the season about to begin,

twelve works hitherto unheard in New York are announced by the Metropolitan management and nine by Mr. Hammerstein; and of these twenty-one novelties one-half are virtually certain to be produced.

Doubtless it would be going too far to say that this welcome state of affairs indicates a fundamental and permanent improvement in the taste of the musical public. That New Yorkers have really learned to prefer music to musicians,—to rank the work above the performer,—would be a cheering hypothesis to advance, but it would be an excessively optimistic one. It is still true that to the majority of opera-goers the element of paramount interest in a performance is that Mr. Caruso or Miss Farrar is to sing, while it is a matter of comparative indifference whether the opera is to be "Pagliacci" or "Bohème" or "Rigoletto"; it is still true that most concert-goers are attracted to a particular concert because Mr. Kreisler or Mme. Nordica is to "assist" as soloist, and not because a symphony by Brahms or a tone-poem by Richard Strauss is to be played. Yet it is not extravagant to say that there is to-day, among the large and heterogeneous musical public of the metropolis, a more widely diffused interest in music *per se*,—in the work to be performed rather than in the art and personality of the performer,—than there has ever been before. We still sit adoringly at the feet of the interpreter; but we are increasingly apt to look beyond and behind him at the creator whose instrument he is.

Whether in this matter the public has led the impresarios, managers, and conductors, or whether the latter have pointed the way, is a question which need not here be discussed. It is at least clear that, so far as opera is concerned, if there is not an actual and persistent interest in new works, the managers of the two rival houses are riding for a fall. By the elder house no less than a dozen works new to New York are announced for production, either at the Metropolitan itself or

at its adjunct, the New Theatre, where a series of forty subscription performances of "lyric opera and opéra comique" (as the projectors classify them) are to be given during the season. Five of the operas announced for production last season, but not given, are promised again. These are Laparra's "La Habanera," Converse's "The Pipe of Desire," Tschaikowsky's "Pique Dame," Goldmark's "Cricket on the Hearth," and Humperdinck's "Königskinder." New to the list are Alfred Bruneau's "L'Attaque du Moulin," Xavier Leroux's "Le Chemineau," Alberto Franchetti's "Germania," Ermanno Wolf-Ferrari's "Le Donne Curiose," Leo Blech's "Versiegelt," Ferdinando Paër's "Le Maître de Chapelle," and "Amour des Tziganes," by Franz Lehar, he of the immortal "Merry Widow" waltz.

The nature of the first five works on this list was indicated in these pages a year ago. Concerning the remaining seven it cannot be said that they promise any very notable artistic revelations. "L'Attaque du Moulin," by the Frenchman Bruneau, based upon a story by Zola, has not, during the sixteen years since it was first produced, impressed itself upon discriminating minds as a work of especial importance. Nor has Leroux's "Le Chemineau," which is derived from Jean Richepin's like-named play, made known to New Yorkers several years ago as "The Harvester." "Germania," produced at Milan in 1902, is the work of a wealthy Italian, whose earlier opera, "Asrael," scored a memorable failure at the Metropolitan in the season of 1890-91. "Le Donne Curiose," first given at Munich half a dozen years ago, is a work of slight texture by the German-Italian composer whose cantata, "La Vita Nuova," attracted favorable attention when it was recently performed in New York by the Oratorio Society. Blech's "Versiegelt" is a one-act comic opera; Lehar's "Amour des Tziganes" is said to be worthy of the composer of "The Merry Widow"; Paër's "Le Maître de Chapelle" ("Il Maestro di Cappella") can only be called a novelty by courtesy, since it is almost ninety years old.

In addition to these works the Metropolitan authorities make known that they have secured the rights to a considerably more promising group of novelties, the chief of which are Claude Debussy's "La Chûte de la Maison Usher" and "Le Diable dans le Beffroi" (founded, respectively, on Poe's "The Fall of the House of Usher" and "The Devil in the Belfry"), and a musico-



LEO SLEZAK.

(Czech tenor, to sing at the Metropolitan.)

dramatic version of a famous and not-unexploited story which he calls "La Légende de Tristan," Gustave Charpentier's "La Vie du Poète," Paul Dukas' "Ariane et Barbe-Bleu," and Maurice Ravel's "L'Heure Espagnole." But unfortunately several of these works are as yet uncompleted, and none is scheduled for immediate production. So we shall have to content ourselves, so far as the Metropolitan is concerned, with the best that Laparra, Converse, Goldmark, Humperdinck, Tchaikowsky,—the inferior Tchaikowsky of the operas,—Bruneau, Leroux, Franchetti, Wolf-Ferrari, Blech, Paër, and Lehar can give us.

Mr. Hammerstein's promises contain more stimulating matter. He has, to begin with, captured the operatic sensation of the year, Strauss' portentous "Elektra," which is fairly certain to provoke a wider and keener interest than any other new work on the local operatic horizon. He has secured also Strauss' earlier and delightful "Feuersnot." Massenet, who appears to be the patron saint and tutelary angel of Mr. Hammerstein's establishment, is represented by four works unfamiliar to New York: "Hérodiade" (in which Massenet anticipated Strauss as a deliver in Salome-lore), "Sapho," "Cendrillon," and "Grisélidis." Mr. Hammerstein



EDMOND CLÉMENT.

(French tenor, engaged by the Metropolitan.)



EGISTO TANGO.

(New Italian conductor, engaged for the Metropolitan.)

announces also an opera by the eminent Hungarian violinist Jeno Hubay, "The Violin Maker of Cremona"; Leoncavallo's "Zaza," and an authentic "American" opera, "Natoma," the libretto of which, on an Indian subject, is by Mr. Joseph D. Redding, with music by Victor Herbert. Of this group of offerings the two operas by Strauss are the only ones which are likely to yield artistic satisfaction of the keener sort. Mr. Hammerstein, as has been indicated, sets much store by Massenet; but for most of us the conviction grows, upon an increasing acquaintance with the works of this incredibly industrious music-maker, that "the more they differ, the more they are the same,"—alike in emptiness and aridity. Of the opera by Leoncavallo not much, one fears, is to be expected; nor is there any impressive testimony to the effect that Hubay's opera is of exceptional significance. As for the opera by Messrs. Redding and Herbert, it would be manifestly unjust to criticise it in advance; but it must be said that the memory of Mr. Herbert's previous exercises as a composer of serious music does not give rise to the most sanguine expectations concerning the score of "Natoma." Mr. Herbert is in-

genious and charming as a composer of operetta and salon music; he has not yet made it clear that he can be equally happy in a more exacting *métier*.

In addition to their several novelties, both opera houses promise their established réper-

ner's "Lohengrin," "Tannhäuser," and "Die Meistersinger."

Of new singers the Metropolitan announces the larger number. Out of a total of eighty-two (involving, as the management has touchingly confided, a salary list of \$2,000,000), thirty-three are newcomers. Chief among these are Marie Delna, Leo Slezak, Edmond Clément, John Forsell, Lydia Lipkowska, Hermann Janklower, and Anna Mettschik. Marie Delna is a French contralto of large reputation in Europe. She has sung both at the Opéra and the Opéra Comique in Paris. Leo Slezak, the Czech tenor, was "discovered" by Gustav Mahler and was for nearly a decade thereafter a conspicuous member of the Opera at Vienna. Edmond Clément, a French lyric tenor, comes from the Opéra Comique in Paris; John Forsell, baritone, comes from the Stockholm Royal Opera; Lydia Lipkowska, soprano, Anna Mettschik, contralto, and Hermann Janklower, tenor, are Russians. Lipkowska has sung in St. Petersburg, Moscow, and at the Chatelet Théâtre in Paris; Mettschik comes from the Imperial Opera in Moscow; while Janklower, though a native of Riga, has sung for the most part in German



MARGUERITE SYLVA.

(The American soprano, who will be a member of the regular Manhattan company this winter.)

toires. The Metropolitan, in addition, will revive (among less important works) Gluck's "Orfeo," Weber's "Der Freischütz," and Verdi's "Otello." The Manhattan will again present Debussy's incomparable "Pelléas et Mélisande," Charpentier's entertaining "Louise," Strauss' "Salome," and Massenet's "Thaïs" and "Le Jongleur de Nôtre Dame," in addition to the perennial Mascagni-Leoncavallo-Puccini répertoire and the older French and Italian operas. Mr. Hammerstein also holds out a prospect of performances in a French version of Wag-



FREDERICO CARASA.

(The much-discussed Spanish tenor at the Manhattan.)



MME. CARMEN-MELIS.

(Another singer who will appear as "Elektra" at the Manhattan Opera House.)

opera houses. Others of the company who are new to the Metropolitan are Jane Osborn-Hannah, Jane Noria, and Vera Courtenay, all Americans, and sopranos; Jeanne Maubourg, a mezzo-soprano from the Théâtre de la Monnaie et Brussels, and Dinh Gilly, an Algerian baritone from the Paris



FERRUCCIO BUSONI.

(The eminent Italian pianist, who will be heard in America after several years' absence.)

Opéra. Those who are sometimes affectionately referred to as "old favorites" will return in considerable numbers. We shall attend again upon the activities of Miss Farrar, Mme. Fremstad, Mme. Nordica, Mme. Galski, Mme. Homer, Miss Destinn; Messrs. Caruso and Scotti, Anthes and Burrian, Jörn, Soomer, Amato, Goritz, Witherpoon, and the rest; and it is said that the great Victor Maurel, once one of the chief glories of the Metropolitan, will return to its boards for the sake of appearing in Laparra's "Habanera."

There are two new conductors,—Vittorio Podesti, from the St. Petersburg Imperial



MME. MAZZARIN.

(One of the singers who will be heard as "Elektra" in Strauss' opera at the Manhattan.)

Opera, and Egisto Tango, from the Komische Oper in Berlin, who once paid a visit to this country and was heard at the Academy of Music under the ægis of the lamented Colonel Mapleson. Arturo Toscanini, the masterful Italian, will again be here as the right arm of Mr. Gatti-Casazza, and Alfred Hertz, the able and warm-blooded Wagnerian, will return. The orchestra has been increased, and will number 153 players.

The season is to endure for twenty weeks, and performances are to be given outside of

New York,—in Philadelphia, Brooklyn, Baltimore, Boston.

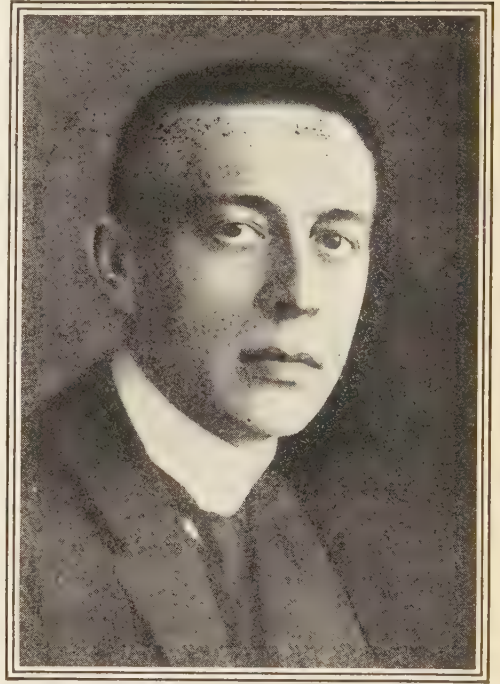
Mr. Hammerstein, with charmingly characteristic waywardness, has foregone the customary detailed announcement of the make-up of his company. At the moment of writing, all that he has chosen to divulge to the public under this head is contained in these words: "Subscribers doubtless will be glad to hear of the renewals of contracts with Mary Garden, Luisa Tetrazzini, Gerville-Réache, Augusta Doria, Emma Trentini, Lina Cavalieri, Charles Dalmores, Maurice Renaud, Hector Dufranne, Charles Gilibert, Giovanni Zenatello, Mario Sammarco, Florencio Constantino, Armand Crabbe, Giovan-



TILLY KOENEN.

(Dutch contralto, who is making an American concert tour.)

ni Polese." Certainly the subscribers should be glad, and doubtless they will be; for six of the singers named in Mr. Hammerstein's tentative list are artists of the highest rank, four are admirable by reason of various traits, and the remaining five are serviceable. The director announces further that he has engaged for the name-part in Strauss' "Elektra" the creator of the rôle at the Monnaie, Brussels, Mme. Mazarin, and, as an alter-



SERGEI RACHMANINOFF.

(The distinguished Russian composer-pianist, who will be heard here in concert this season.)

nate, an Italian singer, Mme. Carmen-Melis. It is also understood that Mr. Hammerstein will take over from his "popular-price" opera company, which has been occupying the Manhattan since August 30, the tenors, Frederico Carasa and Nicola Zerola; the sopranos, Marguerite Sylva and Alice Baron; the contralto, Margarita d'Alvarez, and the baritone, William Beck.

As a season within a season Mr. Hammerstein will give, in addition to the subscription series and at prices ranging from \$1.50 to \$3.00, performances of *opéra comique*, to be sung by a company headed by the French soprano Henriette de Lorme and the tenor Henri de Vries.

In place of Cleofonte Campanini, retired, six conductors have been engaged, the chief of whom is Henriques de la Fuente, from the Antwerp Opera.

Admittedly the orchestral organizations will not find it an altogether easy matter to meet the powerful opposition of the opera houses; yet despite this fact the Philharmonic Society, which this season takes a new lease of life after a thoroughgoing reorganization, is planning to make a larger demand upon the sympathy and the pursestrings of the

New York public than it has ever made before. Within recent years content with sixteen concerts a season, this venerable body will give during the coming winter thirty-four concerts in Manhattan and five in Brooklyn. Gustav Mahler, who abandoned his post at the Metropolitan in order to accept the conductorship of the Philharmonic, has made radical changes in the constitution of the band, among the most vital of which are the engagement of a new concert-master, Mr. Theodore Spiering, and new players for the hitherto defective woodwind and brass departments of the orchestra. Six of the thirty-four New York concerts will be given as a "historical cycle" and five as a "Beethoven cycle."

The New York Symphony Orchestra, which continues under the leadership of Mr. Walter Damrosch, will this season take advantage of the facilities afforded by the New Theater, and will give there sixteen Sunday afternoon concerts, in addition to eight evening concerts in Carnegie Hall. A "Berlioz cycle" is announced for the last five of the concerts at the New Theater. Mr. Damrosch makes the singular announcement that as "no new symphonies of importance have been published recently," he must perforce fall back upon the symphony of Elgar which he performed here last winter,—a tiresome and, for the most part, inconsequential work which scarcely clamors for repetition. Mr. Damrosch's remark, by the way, is a misleading one. He knows as well as any one that contemporary composers are not nearly so apt to cast their ideas in the old symphonic mold as in those freer and more elastic forms that are the chief vehicle of modern instrumental thought. If he lacks sufficient novelties, why does he not produce some of the works of the younger English school of music-makers, as yet totally unknown here,—for example, those of Granville Bantock, Joseph Holbrooke, Ernest Bryson, Frederick Delius? And there are new scores by Vincent d'Indy, Maurice Ravel, Max Reger, Jan Sibelius, not yet heard in New York, which Mr. Damrosch might have considered to advantage.

Boston, as always, is far more progressive and adventurous than New York in this matter of searching out and presenting interesting new works, and when her superb orchestra visits us again this season under the stimu-

lating directorship of Mr. Max Fiedler,—its conductor of last year,—we shall hear some portion of the long list of novelties which the New England capital is to have the satisfaction of hearing first. Among these are scores by the Englishmen who have been named above,—Bantock and Delius,—and by Boëhe, Debussy, Glazounoff, Rachmaninoff, Reger, Sibelius, Sinding, Scriabine, and Strauss (the early "Macbeth" of the latter, unknown either here or in Boston).

The Russian Symphony Orchestra, continuing its indefatigable propaganda for the music of the Muscovite, announces new pieces by Arensky, Borodine, Balakireff, Glazounoff, Moussorgsky, and Scriabine.

As usual, we shall witness, in addition to the proceedings of the orchestras, the amiable activities of the Oratorio and Musical Art societies and the chamber-music organizations. Their announcements contain no features of exceptional moment.

The soloists, despite our (let us hope) progressive regeneration, we have always with us,—though, as regards the newcomers among them, their numbers are somewhat smaller than in other years. Those who will discover for the first time the great American public are the Russian composer-pianist Sergei Rachmaninoff, the Hungarian pianist Yolanda Mero, the twelve-year-old Spanish pianist Pepito Arriola, the fourteen-year-old Russian violinist Jascha Bron, the Dutch contralto Tilly Koenen, the Russian 'cellist Joseph Malkan, and the English composer Liza Lehmann, whose song cycle, "In a Persian Garden," made her widely known and adored some years ago. The famous Italian pianist Ferruccio Busoni will return after an absence of some years; and we shall be beguiled to listen also to (I shall name but a few) the great Venezuelan, Teresa Carreño; to Olga Samaroff, a pianist of excellent parts; to the admirable violinists Kreisler, Elman, and Maud Powell; to the well-beloved Sembrich, Farrar, Homer, Schumann-Heink, and to the remarkable Ludwig Wüllner, one of the most gifted and impressive *Lieder* interpreters who have ever been heard in this country.

So they come, year after year, trailing their well-advertised clouds of glory; for this is a land which, for the virtuoso who is fortunate enough to persuade us, is ever flowing with milk and honey.

“THE BUSINESS OF CITIZENSHIP” IN NEW YORK CITY.

BY WILLIAM H. ALLEN.

(Director of the Bureau of Municipal Research.)

NEW YORK CITY will hold, on November 2, its great quadrennial municipal election. The total registration is 644,644, or 2400 less than for the city election in 1905 and 43,000 less than for the Presidential election in 1908. All electors will vote for Mayor, Comptroller, President of the Board of Aldermen, and each of the five boroughs votes to elect its own Borough President. Manhattan and The Bronx will elect a District Attorney. (This is a county office and the counties of Kings, Queens, and Richmond do not elect this year.) On the city ticket also four Justices of the Supreme Court will be elected, and on the county tickets Sheriff, Register, County Clerk, and City Court Judge. The only member of the Board of Estimate and Apportionment who seeks re-election on the regular ticket is Borough President Cromwell, of Richmond. Borough President Haffen, of The Bronx, recently removed by Governor Hughes for waste and incompetency, and Borough President Gresser, of Queens, defeated in the Democratic primaries, are running for re-election independently. The principal members of the present administration who are candidates on regular tickets are Borough President Cromwell, of Richmond; John H. McCooey, Deputy Comptroller; Joseph Haag, now Secretary of the Board of Estimate; John Purroy Mitchel, Commissioner of Accounts, and William H. Prendergast, Register of Kings County. The candidates on whom public attention centers are as follows:

Democratic tickets, practically without exception, appeal to straight organization men. The Republican tickets, inasmuch as they contain a number of Democrats, and represent numerous other compromises with fusion elements, are not throughout so appealing to organization men. The independent fusion ticket, called into existence on October 9, was heralded with no little enthusiasm by the Republican-fusion elements, which thought that Mr. Hearst's candidacy would strengthen the chances of all candidates on their ticket, except possibly its head. While many supporters of the third ticket believe that it will insure the defeat of Judge Gaynor, they differ as to whether the election of Mr. Bannard or of Mr. Hearst is more probable.

CONFLICTING FORCES AT WORK.

New York has long been recognized as America's metropolis not only in population but in superlatives and paradoxes. At no time, however, had its biggest-ness and its paradoxes been more obvious than in October, 1909, as the Hudson-Fulton festivities blended into the municipal campaign.

SOME SUPERLATIVES INVOLVED.

Here are some of the superlatives involved: A ballot of twenty-odd columns will confront 645,000 registered voters. The successful candidates will spend in four years a thousand million dollars, nearly half the yearly earnings of all the country's 230,000 miles of railroad. They will act for 4,500,000 people in full gaze of 80,000,000. Their

Office.	Democratic.	Republican Fusion.	Independent Fusion.
Mayor.....	William J. Gaynor.	Otto T. Bannard.	W. R. Hearst.
President Board of Aldermen.....	John Galvin.	John Purroy Mitchel.	John Purroy Mitchel.
Comptroller.....	H. H. Moore.	William H. Prendergast.	William H. Prendergast.
District Attorney (N. Y. County)....	George G. Battle.	Charles S. Whitman.	Charles S. Whitman.
Borough President (Manhattan)....	Joseph Haag.	George McAneny.	George McAneny.
Borough President (Brooklyn)....	John H. McCooey.	Alfred E. Steers.	Alfred E. Steers.

Relatively few voters could give the names of their own preferences for Justices of the Supreme Court, Aldermen, Register, County Clerk, or City Court Judge. With the exception of their Mayoralty candidate, the

army of over 60,000 employees is nearly twice the entire United States Navy and almost as large as the nation's standing army. Nowhere in the world are bigger promises made; nowhere have been told so many of

the vital facts of municipal administration; nowhere has waste been proved on such a colossal scale; nowhere have officials tried so hard to make the public intelligent as to causes of waste and inefficiency, their time and place. Nowhere are such huge sums spent on education and health. New York's police force of 10,000 is the biggest, the best, and the "baddest" maintained by any city in its class. It believes its fire force of 4300 is the best; it knows that force costs the most. It is employing the soundest principles ever worked out for tenement-house reform. Nowhere is the educator's hand held out so generously and effectively to foreigners and to ambitious but handicapped adults through lectures, libraries, and museums. No city is so uncertain as to its present borrowing power. None can boast such a record of election frauds, contract frauds, payroll frauds, real-estate frauds, campaign-promise frauds, or fraud-checking reforms.

SOME SUGGESTIVE PARADOXES.

Among its paradoxes the chief is its present state of mind, where with more knowledge about itself than ever before it is seemingly more dazed than ever before. With new tunnels opening into New Jersey and new bridges connecting all boroughs, with the "bridge crush" greatly reduced, or at least systematized and considerably pacified, with better express trains on elevated and steam railways, the ultraconservative elements of the community are demanding transportation relief. Men, parties, and organs that four years ago acquired a white heat in denunciation of municipal socialism are now promising municipal ownership, construction, and operation if need be; have chosen as standard-bearer the head of one great financial institution and director of numerous others; and have encouraged if not besought the whilom apostle of "anarchy and class hatred" to help them defeat the party which four years ago had their help in saving the city from his "threatened depredations."

Just after the City Superintendent of Schools announces that the Russell Sage Foundation has discovered by examining thousands of graduates that those who began years ago on part time (four-fifths now) did better than those on full time, all parties promise a full day for every child because a "half day means half scholar." Although it takes approximately two years to get a new school building, "at once" is the time asked and promised by one platform for giving a seat

for every child. Although for years no children have been turned away for want of room, another platform promises to stop the scandal of turning thousands away for want of seats. More seats have been provided to date by over 150,000 than were asked by the city's educators,—yet all parties deplore the failure to provide seats.

In the same issues metropolitan papers demand primary reform, and announce a theft of party name, emblem, and machinery by methods which primary reform alone could never check.

Exponents of salvation by referendum barely mention the pending constitutional amendment which excludes subway bonds from the city's debt limit. With every party pledging an economic administration according to proper business methods, no party and no speaker have discovered in this amendment the epitome of the business issue now confronting the taxpayers. That debts for subways and docks may be incurred without limit on the assumption that they will, of course, be self-supporting means finance of either the Napoleonic or the wildcat order, according to the efficiency of the next Comptroller. Yet conservers of the city's business integrity find silence on the constitutional amendment and on what the next Comptroller should do compatible with promises of business reforms.

New York womankind is aroused as never before. They are determined to make their influence felt in this next election,—if need be by breaking up public meetings. Yet not a word of the budget for 1910, which will be voted three days before election, and which will decide what may be done for education, health, and morals throughout the twelve months of next year; not a word as to *how to get done* next year what men as well as women want; not a word of woman's obligation to use the opportunity imposed by such knowledge as budget estimates and recent investigations flaunt in her face to-day; not a caution that being wedded to the ballot entails continuing self-education and study of work done and not done, as well as honey-moons of election excitement.

Arch enemies of the tenement-house law are supporting and demanding its efficient enforcement; party leaders are charging their own party with corrupt bargains to perpetuate election frauds and pretending to be enthusiastic about candidates pledged to disregard party interests; organizations of labor and of taxpayers which threatened in June

not to vote any ticket that did not especially recognize them now applaud tickets which do not recognize them; Socialists are opposed to socializing transportation; educators anathematize politicians for locating school sites in wrong places, and at the same time permit, without public comment, a school census, which now promises not to locate thousands of children who ought to be in school; real-estate leaders when demanding a dollar's worth for every dollar of taxes openly attack accounting reforms recently made and minimize the importance of business procedure; reformers of every description are so busy pledging candidates to future reforms that they refuse to recognize reforms made by the present administration. One week "part time" threatens to be worse than ever before,—the Board of Estimate is to blame; the next week "part time" is still worse, but shifting of population is to blame; the third week it promises to fall off; the fourth week it becomes a boon and not an outrage; the sixth week it is again a scandal.

Paradoxical! Paradoxes! Who can help sympathizing with the insane patient who, after seeing an asphalt step constructed, ran to his cell for protection, tore his hair and cried: "Wheels within wheels within wheels! Mud in the morning and stone at noon! Where's this crazy world going to?" What is the explanation? Simply that we are in the midst of growing pains, and illustrating anew Professor Patten's contention that revolutions are encouraged by prosperity and not by adversity. It is because of New York's achievements that she sees her defects so clearly. We discern the promised land; but not having been there, our path ahead is not well cleared, signboards are not yet up, landmarks are missing. Leadership which was effective with an uninformed, stampedeable public is itself a stranger in this new pioneer world. The "psychological moment" school of political pilots were adept in handling "now you see it, now you don't see it" issues on waves of unrest; but they have not yet gotten their land legs.

There was a time when New York did not know what it wanted. This year so many of us know not only what we want done but how we want to get it done that a new kind of leadership is required. We absolutely refuse to concentrate on the "who" until after the "what" is settled. Unconsciously but no less emphatically the public has with regard to all tickets set the probable "what's" over against the known "who's."

That is the reason for the third ticket by petition so late as October 9. The Fusion and Democratic platforms promise the same things,—subways, school buildings, economy, progress. Both started the campaign with "who's" well balanced for appealing to those who ask only: "Who shall it be?" Each in its way was able to prove itself closest to the poor; each made a great point of identifying itself with the generic East Side; in the main, each drew the same picture,—one against a background of pride in New York's past, the other against a background of opportunities not realized. The paradox of tickets and parties was brought out by the insistent demand for a real fight, for speeches by opponents that would show opposition, for more talk of *how to get done* what everybody pretends to want.

October 11 comes; the campaign is alive. Everybody is talking about it. Everybody knows that something, and something different, too, is going to happen. Lethargy gives way to hard work and excitement,—and all this without any change in the citizenship of New York. Not in the public,—not in the voters,—not in the needs,—not in the opportunity, but in the leadership and in the subject of conversation is the secret of this change.

Without fully realizing it New York City has set the nation an example by waking up to the fact that what may happen from 1910 to 1914 will depend so largely upon outside contractor, outside political organization, and inside methods of serving the contractor and organization, that it has made the vital issue *what these three combined are apt to do*. Vaccinating the public by bogus ante-campaign mass meetings of protest against waste has failed to make the city immune to real smallpox-evidence in the midst of the campaign. The public has shown capacity to use information.

This new knowledge is specific as never before with regard to (1) waste, (2) inefficiency, (3) steps recently taken, and (4) steps that must yet be taken to reduce and to prevent future waste and inefficiency. While civic bodies have played an important part in bringing this situation about, the fullness of the opportunity is due to the present administration, its improvements and investigations.

ILLUSTRATIONS OF DEMONSTRATED WASTE.

Wherever investigations have been made, —and all of the more important departments

have been examined at least in part,—a high percentage of waste has been found in supplies, contracts, and salaries.

The following illustrations are taken from official records, and many of them are due to initiative on the part of the Mayor, the Comptroller, or department heads. *Corrective measures have been taken in most of the instances mentioned:*

The Park Department found no wrong in paying a salary to a woman supervisor of playgrounds who went to school instead of to playgrounds, or in leasing privileges for one-half to one-tenth their value. The Fire Department failed to test its hose for fear it would break. The Water Department had no means of preventing waste of water or undercharging. The Tenement House Commissioner admitted an enormous waste of energy because defiant law violators were not prosecuted. The Health Department had only 5 per cent. to 8 per cent. result from its school examinations. Two Borough Presidents were removed by Governor Hughes for paying from two to five times the market value for supplies and for gross incompetence; a third ran away rather than stand trial; the examination of the fourth, though not yet completed, has disclosed similar earmarks. The Comptroller has declared that from 25 per cent. to 40 per cent. of the city's clerical staff, day laborers, etc., could be dismissed and public work both increased and improved. Civil Service appointees have, after discharge, recovered their positions and thousands of dollars for back pay because the law of discharge was blunderingly violated. Bellevue Hospital bought high-priced milk for tuberculous patients and gave it to hospital employees, has paid \$50 more each for ambulances than the price offered, and attempted to hold in office an employee who was a confessed violator of law, a falsifier of records, and diverter of funds from authorized purposes. The Board of Education asked for less money for fuel and supplies in 1910 than it used in 1904, yet does not claim to have applied similar efficiency tests to its repairs, janitor, and educational services. Admitted condemnation graft surpasses the "dreams of avarice."

The Police Department's business methods were found to be so lax as to warrant a statement by the Bureau of Municipal Research that such methods must injure policing efficiency. Illustrations follow of conditions found, with General Bingham's co-operation, in the business side of his own police work:

1. Typewriter erasers which could have been bought for 25 cents a dozen under the department's contract were bought in the open market for 80 cents a dozen;

2. For finger-print filing cardboards which can be bought by any citizen for 19 cents a piece the department paid \$1.07;

3. Dealers' bills were destroyed and bills for increased amounts made out and passed by the department,—e.g., \$3.40 raised to \$4.30;

4. Unauthorized purchases were made by officers connected with the department;

5. The form of contract was so indefinite and drawn with such vague phrases that gross favoritism was encouraged;

6. Specifications often contradicted provisions in the contracts themselves;

7. Dealers admitted being paid for goods not delivered,—now two thousand cards, now two lights or four lights of glass, etc.;

8. Goods were paid for twice;

9. Over one hundred unsettled bills were outstanding in October, 1908; many simply because precincts had not returned them to headquarters;

10. A bill for \$116,000 covering an order issued for February 8, 1907, was still unpaid in October, 1908; the lieutenant in charge said that no one would certify for it; the contractor stated that he had never been told of the refusal of the precinct commander to certify for it;

11. Fifty per cent. more forage was ordered than was actually required;

12. Station houses of similar design and of about equal size varied in consumption of coal in 1907 from 51 tons to 110 and in 1908 from 31 tons to 102 tons;

13. Inventories known to be false were carried on the books;

14. No material was ever left over from any job, although repairs amounting to \$124,000 were made in 1907;

15. On considerably more than one-half the number of wagons, repairs for one year cost from \$125 to \$225, and on more than one-half the number of carriages the department spent on repairs from \$85 to \$213. On patrol wagons, costing \$100, repairs for four years ranged from \$363 to \$610 each.

OFFICIAL AND CITIZEN INEFFICIENCY.

Waste is as inseparable from inefficiency as is effect from cause. The fact of incompetence is sufficiently established by the foregoing facts as to waste. They convinced Comptroller Metz that "a business administration would so check waste, swell revenues, and increase efficiency that in twenty-five years income would equal cost and no taxes would be necessary." The lesson of lessons is that *a very great part of the inefficiency has been due to methods which make inefficiency both easy and certain.* Whether a man loafs or blunders depends very largely upon what is expected of him. If nobody knows whether he goes to his office or not he will frequently stay away. If no-

body knows whether and how he works when he gets there he will not do his best. To expect results without knowing what results are, never begets efficiency. In the past the most inefficient thing about New York has been its failure to find out whether individual officers and employees, offices and methods were inefficient or not. Not having tried to find out, it has not known specifically where inefficiency existed. The gap between citizen responsibility and citizen action has been quite as great as the gap between official responsibility and official action. Even the leaders among New York citizens have made as bad a mess of what F. A. Cleveland has called the "business of citizenship" as have its officials of running a great municipal corporation.

OFFICIAL CREDIT FOR RECENT GAINS.

The fact that evidence of waste and inefficiency has been presented not only by volunteer and unofficial agencies but by the Commissioners of Accounts, Charter Revision Commission, joint legislative committees on city finances and courts, the Mayor's Finance Commission, and the Comptroller is conclusive proof of New York's recent gains.

Four years ago budget-making evoked little public interest and less public intelligence. On many an October day in 1909 the newspapers have given more space to discussing the budget for 1910 than they gave throughout the month of October in Mayor McClellan's first term. The 1910 Budget Conference of four score civic and charitable agencies, a similar conference of over two hundred clergymen of all denominations, and numerous bodies of taxpayers are to-day combining with city officials in demanding the attention of the public to budget requests for next year. On two different Sundays last spring two hundred congregations had explained to them the responsibility of Christian citizenship for the use made of public funds. The Young Men's Christian Association has circulated an appeal to clergymen to refer to budget needs from the pulpit, and in addition urged 2500 voters in men's clubs to inform themselves about budget alternatives.

In Mayor McClellan's first term budget hearings were perfunctory and citizens' attendance was not encouraged. When taxpayers appeared their ignorance of budget estimates made their protest less telling than the levity it often provoked. The burden of proof was always on the taxpayers. Such a

thing as a tentative budget, shifting the burden of proof to officials, was not dreamed of. At this year's taxpayers' hearings there promise to be crowds, as there were last year, representing almost every profession. To protect themselves and the public against individuals whose interest is not yet based on definite knowledge, the Board of Apportionment has won public approval by passing a resolution that citizens must discuss specific budget items and not, as the Mayor suggests, "dilate on the State of the Union." As long ago as last June taxpayers were notified that on October 14 and 18 they would have ample opportunity, "all day if necessary," to make specific protest and specific request with regard to budget estimates, plus October 27 to speak for or against the tentative budget. Similarly six different days were set apart in the first three weeks in October for department heads to make public explanations of their budget requests. Thus not only have the numbers interested in New York's budget increased but the budget season has lengthened from one or two days to six months.

NECESSARY STEPS IN BUDGET REFORM.

Briefly stated, New York City has taken twelve forward steps in budget-making, all of which tend to give the taxpayer effective control over the public pursestrings, and all of which must eventually be copied in every State and city:

1. Uniform questions are sent out to all departments.
2. Expenditures for five different six months' periods are called for, because in this way padding or increases unaccounted for are quickly detected.
3. Pay-roll costs and general maintenance costs are given for the first six months of the current year to expose attempts to overstate by the "June Hump" the needs on June 30 when estimates are made.
4. Whether pay-roll increases are requested for additional employees or to increase salaries of present employees is shown.
5. The cost of repairs and maintenance for streets is standardized before voting the budget. Similar steps are yet to be taken for pay-rolls, coal, and other important supplies.
6. Estimates of departments are printed in advance.
7. Public hearings on the estimates are given.
8. A hearing is held on the tentative budget, —what after considering all estimates the city officials propose to vote unless the taxpayers change their minds.
9. A resolution accompanies the budget to the effect that moneys therein appropriated may not be used for other purposes without authority from the appropriating body and without due notice to the public, and that

10. The monthly pay-roll shall not in any one month exceed one-twelfth of the annual appropriation. Time sheets should be required.

11. A resolution instructs the City Comptroller to look at each pay-roll to see not only that it does not exceed one-twelfth of the annual appropriations but that the amounts spent are according to the pre-budget advertised intentions. The intentions themselves are printed in the form of schedules as part of the budget.

12. A system of accounting is now in force which describes money spent when spent, work done when done, and presumes methods of inspection and audit to see that rules are complied with and the truth told.

GAINS IN KEEPING TRACK OF THE BUDGET AFTER IT IS VOTED.

Four years ago the chairman of the recent Charter Revision Commission said that "we choke questions like noxious weeds,—it is impossible to get information unless the seeker himself turns bookkeeper." The present Comptroller declared that the system of accounting which he had inherited was "obsolete" before he was born. He found himself in the same darkness as an outsider and in the leading strings of his subordinates. He grew tired of sending for a bureau clerk or office boy every time he wanted to ask a question, and demanded an accounting of the city business not too mixed up for the Comptroller himself to understand: "Because they never have done it, they tell me they cannot do it; *because they never have done it* they are going to begin to do it now. The existing system of keeping the city's accounts serves only to conceal the facts; a method will be found to present the facts so that they will be *intelligible to everybody who can read if I do not do anything else during my term of office.*"

That promise has been fulfilled. New York City has to-day installed an accounting system which, if properly administered, will put its operations on as firm a business basis as the accounting brains of the country could make possible. The maintenance of this system is the "business issue of the next administration." Those readers of the REVIEW OF REVIEWS who are concerned over the business methods of their own communities will do well to obtain from the Comptroller, 280 Broadway, New York City, the fifty-page pamphlet which contains a general description of the new system of accounting and reporting. Likewise mayors and comptrollers, university and city libraries will do well to attempt to secure in addition the manual of accounting and business procedure (600 quarto pages), which contains

forms and documents and detailed description of their use. Although published for the guidance of the officials and the clerical staff of New York City, this document will prove serviceable everywhere. It has the force of an ordinance and must be faithfully executed until amended, after a more effective method of reaching the same administrative end is proved. In making any change the next Comptroller must state such change in writing and assume official responsibility therefor. This accounting reform is the product of three years' co-operation between the Department of Finance and the Bureau of Municipal Research. Before its final adoption three accounting firms were paid to find if anywhere it fell short of the best business practice. During its installation it was critically examined by a committee of experts representing the Chamber of Commerce as well as by the following consulting experts for the Bureau of Municipal Research: Messrs. William Mahl, comptroller of the Harriman systems; Martin P. Blauvelt, comptroller of the Erie Railroad; Richard T. Lingley, treasurer of the American Real Estate Corporation; W. W. Stevenson, comptroller of the Mutual Life Insurance Company; Leon O. Fisher, auditor of the Equitable Life Assurance Society; Fredrick B. De Berard, statistician for and representing the Merchants' Association.

At the very time that placards in the interest of the Democratic political organization declare that the new accounting system caused confusion Democratic administrators are installing and enforcing the new system. Almost as though there were no campaign the Comptroller has issued the two documents above mentioned. What more paradoxical than that Republican-Fusion candidates are trying to keep away from the Democratic candidates credit from which the latter are running away! The significance of these changes it is not necessary to emphasize further than to state for the lay reader that such a system efficiently administered will tell where and when may occur such waste and inefficiency as are above listed.

A PREMIUM ON EFFICIENCY.

One result will encourage those who have not learned that a large proportion of public employees prefer to render full service for their pay. The attitude of employees toward their work is notably changing. Many men exist who are willing to enjoy and to flaunt the fruits of corruption and

"honest graft" so long as there is doubt in the public mind as to the time, place, and character of the acts by which their personal profit is obtained. Few men, however, exist who are willing to face their neighbors when the fact of dishonesty and of incompetence can be proved so that no considerable portion of the community will question the evidence. Where an accounting system fails to differentiate efficiency from inefficiency the conditions of survival often bring to the front men who are utterly incompetent to do the work with which they are intrusted. But when a system of accounting makes it possible to pick out the goats the conditions are such that the man who is able to do the work and do it right stands out in bold relief; the center of equilibrium shifts to him. Such has been the result in many New York offices. New York's experience proves that an efficient man can fight harder and more effectively to retain a system which recognizes and exposes to view his fitness than can an inefficient man to retain a position which conceals his unfitness.

NEW IDEAS OF INITIATIVE AND RECALL.

The office of Commissioners of Accounts, fruit of the reaction against Tweed, had fallen from being the investigating eyes and ears for the Mayor to mere blinders and earmuffs. No one looked four years ago to that office for protection or information. Its studies and its comments rarely reached the public except when a "whitewash." To-day that office is the embodiment of the city's right and duty to exercise the initiative and the recall at their best. Recognition of the citizen's right to public documents; proof that his initiative will prompt efficient official examination and report of the facts; success in securing the recall of officials forced by documentary evidence to be incompetent and wasteful,—these are three notable triumphs of McClellan's administration. Initiative in discovering where energy is wasted through efficient examination of public records is vastly more important than initiative in making more laws. The recall which enables any citizen or any body of citizens to force the removal of any public official on the ground that he is inefficient is again vastly more important than the recall which requires a large number of petitioners and the turmoil, excitement, confusion, and expense of an election. Intended as eyes and ears for the Mayor, the office of Commissioners of Accounts has developed into eyes and ears

for any citizen who can submit due cause for an inquiry.

INCREASED DEMAND UPON PERSONALITY.

The public is beginning to see that it is very much easier to get into agreement over policies than over men, over acts than over promises. The present campaign has taught this over and over again. In striking contrast to the aggressiveness of its "chamber of horrors" were the first two meetings of the Committee of One Hundred, which were as pathetic fiascos as are seen in politics. Instead of saying what they meant, asking definite questions, discussing definite pledges, they were trying to beat politicians at the latter's own game by guessing at personalities and attempting to interest followers in the character of leaders rather than in the problems to be solved. The Anti-Fusion exhibit, next door to the Committee of One Hundred's "chamber of horrors," shows that wherever campaign issues are taken from official acts, rather than personalities, the party which assumes responsibility for these acts must stop to discuss, deny, explain, or pledge correction. Fusion did not become a burning reality until it was recognized that the reason for fusion existed even after the opposition had decoyed its candidate.

Had taxpayers' bodies started out with a definite list of things they demanded to have done, they could have become a vital influence in the campaign. Instead, they felt that they would seem to control enough votes to justify recognition of their organizations on party tickets. They have found it impossible to unite any hundred taxpayers upon any one personality. They forgot also a second significant fact, and that is that it is impossible to disunite any hundred taxpayers by a political appeal upon such definite issues as whether or not revenues paid in shall be received by the city, requisitions issued before money is spent, public concessions leased for their full value and not one-half their value, or budgets based upon proof of need.

The selection of one of the present Commissioners of Accounts, Mr. Mitchel, on the two fusion tickets demonstrates again the public's desire to interest itself in things done. Several factions split on personalities because labor mistakenly believed that its protection depends upon having a labor man in office rather than upon having in every laboring man's head knowledge of what all officials are doing for or against all who labor.

To measure up to definite expectations of

things to be accomplished a very much higher type of personality is required than to satisfy an indulgent, gullible, vacillating, uninformed public with indefinite expectations.

Furthermore, very much abler men will undertake office when there is some chance of proving worth and disproving unfounded charges. Had fusion begun by proving the task too big for any man in town, instead of by searching for men who would adorn the task, it is likely that keen competition would have resulted for recognition as the man for each place.

SOME NECESSARY NEXT STEPS.

New York must have subways, adequate school facilities, a businesslike administration, playgrounds, a sustained anti-tuberculosis campaign, etc. But these are ends, not steps. The most important step and the least customary of all is to ask questions. For example: What does New York owe? How much may she borrow without increasing the 10 per cent. debt limit? Need the Court of Appeals have taken so long to answer these questions that an important constitutional amendment must be favored or opposed in the dark as to essential information?

The Bureau of Municipal Research has formulated three sets of tests and steps in three publications: "What Should New York's Next Mayor Do?" "What Should New York's Next Comptroller Do?" "How Should Public Budgets Be Made?" Several prominent men and a few editors have protested that only a paragon could take all those steps. On the contrary, not even a paragon could take any one of them without taking them all. The next administration cannot succeed unless it goes about the city's finances as a great railroad builder goes about locating *not leakage but leakages, not incompetence but incompetent employees, not profitable lines of effort but profits*. The next city and borough and county officers will find at hand not only means of learning how to be efficient but a public equipped to learn promptly in how far and where they are efficient or inefficient. A sufficiently large number of citizens are determined to be efficient in the business of citizenship, to encourage and to insure increasing efficiency among officials. Future mayors and comptrollers should direct subordinates and not rubber-stamp employees' decisions.

Be it conservatism or radicalism, Demo-

cratic or anti-Democratic-fusion forces that shall commit the country's metropolis to municipal ownership, construction, and operation of subways, a demand will sweep the country for municipal construction, ownership, and operation of transportation facilities everywhere, and will everywhere strengthen the demand for municipal socialism. If a majority of New York's Board of Estimate are committed to "equal pay for equal work," teachers' salary agitations will likewise sweep the country. Whatever the attitude of New York's next Mayor toward woman's suffrage, the enthusiasm of the suffrage movement will be affected. If appreciable numbers of the electorate in New York are influenced by lantern-slide or other graphic presentations of waste and inefficiency, by live elephants and monkeys denouncing "slander against New York," and by brass bands, parodies, and "purity" statues, the exhibit method will unquestionably be promptly adopted in other cities. If it turns out that an electorate with definite knowledge as to specific conditions, specific needs, and specific corrective steps gets better results from its public officials, educational campaigns will be liberally supported, and elsewhere definite statement will supplant generalization. If clear vision is made easier because of budget hearings and discussions, officials and civic leaders will want other cities and States to adopt budget reforms.

As Mr. Harriman once said in speaking about the possibility of New York City being put on a business basis: "If we win in New York, we shall have proved it possible for every city." Unfortunately the same must be said also of her wrong steps, for the gap between her beginning to do and discovering results is so great that waves of imitation irrevocably commit other cities to her example. It is too early to expect New York voters to consider their responsibilities to the nation. But it is not too early to demand of leaders of public thought, commentators and students, when analyzing the forces at work in this campaign and its results, that they make clear which of New York's steps are forward in the right direction, which are backward in the wrong direction, and which are marking time. For the country at large it is indispensable that the gap be clearly defined between what New York may want and what is right, and between what New York may believe and what New York has proved.

ENGLAND AND GERMANY—PEACE OR WAR?

BY DR. GERHARDT VON SCHULZE-GAEVERNITZ.

(Pro-Rector of the University of Freiburg.)

[If this panic crisis in the relations of England and Germany is to pass harmlessly it will be due in part, at least, to the new pro-rector of Freiburg University, Dr. von Schulze-Gaevernitz. Frankly and fairly he has stated to Germans the real facts of the deadly rivalry between the two nations. And he has been a powerful advocate of peace. His vigorous words have produced more than the sensation of a day; they have profoundly impressed the common sense of Germany by their earnest sanity. His appeal is now to other nations than his own, for neither Germany nor England would make war if it had to violate the definite convictions of the world.]

Dr. Gaevernitz is one of the first of the economists of Europe. A son of the New Germany, he is more a man of facts and practice than of theory. He is eager to meet men and be in the thick of workaday life. He has lived intimately with workmen, farmers, merchants,—men of the hundred classes. Upon the economic life of his own country he is the highest authority. He is master of finance through actual long experience in banking. His great work "British Imperialism and Free Trade" is the result of years of travel, residence, and industrious investigation in England. Almost a disciple of Ruskin, in his youth he was a friend of William Morris, as he is now of John Burns. He is a warring Liberal in spirit, writes for the journals of all parties, and is free man enough once publicly to have voted the Socialist ticket when a great issue was at stake.—THE EDITOR.]

TO the observant American traveling in Europe these days one deep contrast is apparent. While the German people in almost untroubled peace is working out its economic task excitement has taken hold of our common cousins across the Channel,—an excitement such as has not been known since the days of Napoleon. America, the entire world, is asking the question whether war between England and Germany can still be avoided. As a German, who has given his whole life to the study of the political and economic organization of Great Britain, I should answer that question thus: Peace is indeed endangered, but war, a war that would let loose the worst elemental passions of men and set back social reform and all progress for a full generation, is not absolutely unavoidable.

ANTI-GERMAN PROPAGANDA IN ENGLAND.

Whence the real cause of this menace and talk of war? Certainly not that the British Isles are threatened by a German invasion, for invasion, either by sea or air, is a sheer impossibility over which experts on both sides of the Channel jest. Yet this British spook-seeing has its serious side, for behind the senselessly excited masses there stands a group of leaders who largely influence the press of their country and are deliberately inflaming public opinion to the danger point. Far be it from me to condemn these British patriots

for their efforts against Germany; my only purpose is to understand them. Their reasoning runs about as follows:

German industrial progress is overtaking that of England with giant strides. It has gradually amassed those stupendous aggregations of capital that first rivaled the individual capitalism of England and then grew to American dimensions. The day is now not far distant when the economic power of Germany will equal that of England, mistress of the world and still its leading banker and creditor. Then the two-power standard for her navy will have become financially impossible. With purely economic development British sea dominion must pass away,—melt under the veritable sunshine of peace. To-day, perhaps,—but not to-morrow,—New Germany, rising, can be struck to earth by a mailed fist. Thence comes for England, while she still has power in her hands, the great temptation to a "preventive war." By blockade and privateering they think that German trade,—70 to 80 per cent. of its sea trade,—would be all but destroyed and German wares crowded out of the markets of the world.

British sea dominion was built up in war with Spain, Holland, and France. Why should it not be perpetuated by war with Germany? And further tempting Great Britain to war is the proffered alliance of Germany's continental opponents. England's

friendship it was that rekindled the desire of France for revenge, and the hope of an English alliance has strengthened against Germany the pan-Slavic races of Eastern Europe.

BRITISH MILITARISM.

It is clear enough that not Germany, but Britain, is to-day chiefly responsible for the overwhelming armament of Europe, the result of the militarism that has been driven to such extremes. Figures prove it. By hundreds of millions British expenditures for army and navy have always exceeded those of Germany,—Germany become notorious for her military passion. The tension between the two nations has been still further strained by the latest British naval program, and the fact that Lord Roberts' plan for universal compulsory military service is now, after eager debates and to the great joy of the French, an easy probability of to-morrow. Not against France, not against Russia, not against America is this vast armament, the greatest in the history of the world, prepared. It is an arming against Germany.

WHY GERMANY IS POWERFULLY ARMED.

Next I ask whence should come hope of peace? Not certainly from the calming words of peace advocates, but from England's fear of such a war. Truer for Germans than for Americans, the rulers of an impregnable continent, that hard word of Roosevelt's: "Nations that are unable to defend themselves invite attack." Peace and friendship in this rough world of ours often depend on the impossibility of obtaining by force greater results than can be had by agreement and concession. Respect for a power that it could not attack led England to recognize the economic and political needs of the United States as a world power; and only a similar respect can induce the Briton to reconcile himself definitely to the rise of Germany among the powers of Europe.

And so in view of our dangers of geographical position and uncertain treaties, we have marshaled a great land army effective for defense against the two most powerful nations in Europe. Its growth has followed national increase of wealth and population. And instead of being crushed by its arming, the economic life of the German Empire has thereby gained new energies, finding in its army a splendid disciplinary and educative training school for modern industrial life,—its new enterprises and its vast scale.

THE GERMAN FLEET.

And there is the German fleet. Its building is not, as often thought, the work of one man. In the beginning, it is true, its inspiration was the Emperor William, and he it was who urged the plan to the acceptance of the German people. But now our fleet is being built not by the Emperor but by the nation. The Imperial Navy League numbers a million members,—numbers them among both political parties, the Right and the Left. Among Conservatives the idea took root in spite of their theory of a self-sufficing agricultural state. And on the Left the Manchester spirit, which hoped to decide the conflict of nations by the market price, in its turn felt the force of national necessity.

No peace tribunal nor disarmament treaty will deter us from carrying out our naval program, for this so-called disarmament, on the basis of to-day's equipment, would leave the British unquestioned masters of the sea and by treaty establish their power forever.

GERMANY'S FINANCIAL RESOURCES.

Nor even in the building of her great fleet will Germany ruin herself financially. Those who argue such national poverty are easily answered. Taking only a superficial view, they have compared the brilliant state of British finances with the chronic deficit of the German Empire and its growing indebtedness even in times of peace. In England by Gladstone's model organization of national finance the necessities of life are untaxed, and the expenses of government are chiefly paid by direct taxes on the luxuries of the masses,—the greater part being furnished by alcoholic liquors and tobacco. The fiscal difficulties of Germany arise not from lack of wealth or taxable objects of indulgence but from a national unwillingness to assume taxes. Furthermore, in consequence of unsettled constitutional questions, in Germany crown and parliament are ever haggling over taxes, exactly as they did in England in the days of the Stuarts. Yet for all this, her wealth is nigh boundless and her power well tried. With full ability, therefore, to accomplish our purpose we are creating a navy strong enough to make England hesitate before attacking us.

REAL STRENGTH OF THE GERMAN POSITION.

Happily, as against the uncertain play of war, Germany has decisive powers of defense in her very position, geographical and polit-

ical. About one-third of all German seagoing commerce passes out through the ports of the Rhine. To subdue Germany England would have to blockade the mouths of the Rhine and violate the neutrality of the Netherlands, her own creation. Then, in case of war, it is possible that England's victories at sea might well be offset by French defeats upon land. Neither nation can destroy the other utterly, and certainly by no league of nations can sixty millions of Germans be swept from the world's stage in a day. At the worst, even with the arteries of commerce closed, Germany might still be able to finance Russia's Asiatic politics or organize a federation of the Mohammedan world.

WHY GERMANY DOES NOT SEEK WAR.

And Germany? The thought of attacking England is far from us. Those who doubt it deem us not only scoundrels but fools. For what could Germany gain in war when it is rising so rapidly in peace? What could Germany gain in war, above all, with England? The so-called British colonies are independent democratic nations, that England does not hold in property right and consequently cannot cede. For India the question is not a choice between Briton or German for its ruler. Its future will be either British or Asiatic. Australia is overshadowed by the power that to-morrow will dominate the Pacific Ocean,—Japan perhaps, perhaps the United States,—certainly not Germany. And war would cost us Germans the best of our markets, a market that even to-day is worth one billion marks annually. This is our determining argument for peace.

ENGLAND'S GREATEST INDUSTRIAL RIVAL.

The expansion of Germany in recent years has been marked by a tremendous development in industry, and so in wealth and power. Her population has increased by one-half since 1870, and among the leading nations of Europe her birth-rate is relatively the highest. Yet to-day her narrow boundaries limit her expansion to an intensified industrial life, and thus only in a mediate way can she share in the progressive development of the world. Her necessities for further growth are imperative.

Incomprehensible to many of our contemporaries, the most fabulous change is taking place before our very eyes. Mark its significance. In the eighteenth century Germany had no exports whatever to balance the importation of luxuries for her several courts.

Aside from her bales of linen, the ships that left Germany went ballasted in sand,—sand, which the French jeeringly called "*le produit d'Allemagne*." National poverty continued throughout the greater part of the nineteenth century. States grew up that were famous for poetry, music, philosophy; but this was far other than the creative civilization of wealth.

It was during years yet recent that Disraeli, in his "*Endymion*," pityingly pictured the German diplomat who went from the world's metropolis and its society of illustrious dames and world mastering statesmen back to his exile of home. His people's only wealth was their wooded plains and hills. They needed a fatherland, got "by blood and iron," were his prophetic words. To-day like Midas, the king, Germany touches unseemly raw stuffs and under her hand they become coinable gold,—Germany, the new industrial state, rising in greatness, and soon, perhaps, to equal the colossal power of England!

For our grandfathers such a prophecy would have seemed the illusion of madness, and yet there are Germans who doubt the future. Others of our countrymen, blinded by the glitter of the golden rain, forget the spiritual sources of the down-streaming bounty. They are wholly lost in wonder at the magical growth of our industrial life and see nothing even of political causes: Sedan and the Proclamation of the Empire, when they crowned the Kaiser in the Hall of Mirrors at Versailles.

This growth so marvelous has made Germany the first commercial and industrial rival of England in many parallel lines of production. In her exports of iron and manufactures of iron she is already a competitor on equal terms, while in the eighties she seemed left forever behind. In mere production of iron and steel she has already outstripped Great Britain. Her progress has continually been filled with menace and damage, sometimes disaster, to British commerce.

Take the single striking case of indigo,—a flourishing branch of Indian trade that has fallen to ruin. It was one of the great staples of India and had been the important means of placing the raw material production of the Indian empire on a basis of money exchange. At the beginning of the nineties the total crop of indigo was estimated from \$20,000,000 to \$25,000,000, with both culture and trade almost exclusively in English hands. But in Germany science progressed,

the output of coke wonderfully increased with the spreading iron works, and the new nation acquired the raw material for manufacturing coal-tar dyes. To-day the Germans by chemical processes make three-quarters of all the indigo used in the world. The total yield of indigo in India has meanwhile fallen to a quarter of its former amount. Since 1903 England has imported from Germany more indigo annually than her average yearly purchase from Calcutta in the years 1881-96.

ENGLAND HAS GERMAN ADMIRERS.

The bitterness of such struggles,—and there have been many of them,—makes for war; the patronizing condescension of the average Englishman in the presence of things German is a constant irritant. But other causes make powerfully for peace. The old German Liberals were blind admirers of English life, and even to-day there are those for whom anything English,—simply because it is English,—appears desirable and superior. Even to-day there is an increasing demand for the luxuries of England. The disappearance of French customs in German life and the growing popularity of English ways, which is taking place with compelling power, mark the return to the fundamental similarity of the two nations.

ENGLAND WANTS THE GERMAN MARKET.

And there is the question of self-interest. Germany's need of foreign markets must continue to grow, and for England the market of Germany is to-day more important in actual sales than that of the United States. Yarns, textiles, machinery it imports in great quantities. Characteristically English products, like fish and ships, are exchanged for about the same value of characteristically German products, such as aniline dyes, pianos, and toys. German open-sea fishing yields but one-third enough for domestic needs.

As compared with England, Germany is becoming more and more an exporting nation. Next to Great Britain no nation has so great an interest in maintaining an open foreign and colonial market for the sale of her home manufactures. In the textile industries a very complex division of labor is making its way, by which Germany is seizing the lead in second quality products. The British export of coal to Germany nearly equals the export to England of German sugar, with its higher labor content. But these salient facts apart, if, after all, the English market is to-day more important to Ger-

many than the German is to Great Britain, the reverse is true if the British Empire is considered as a whole. Of all the nations of the earth Germany is the largest purchaser of the raw products of Great Britain, having indeed through excess imports an unfavorable balance of trade. For many British colonies Germany is the dominant purchaser, and against them has power of retaliation. Here is reflected that gigantic change in the economic life of the British Empire which is gradually but surely unfolding.

How else should these vast territories pay interest and tribute to England if not by exporting their raw material to industrial lands? Great Britain herself in this colonial traffic has the balance of trade slightly against her. And though her colonies prefer British made goods, it is imperative for them to maintain payments on their unpaid debts by exports to non-British industrial lands. And among these Germany is the most important.

THE MARITIME BALANCE OF POWER.

The building of the German navy suggests at least this: That it is better to make treaty with the invincibly strong than with the weak and declining. Between equals the question of disarmament at sea could be seriously discussed, disarmament for us possible only on the basis of a balance of power between the great nations. England, the United States, Germany, Japan, France, and possibly ultimately also Russia and China, will represent in the twentieth century the single nations that would form such a system of maritime balance of power. The age of dominance at sea by any single nation is approaching its end, to the advantage above all of the United States, for the Monroe Doctrine was never safe from attack under the dominance of a single state. With a balance of the powers, if Germany chose to challenge the Monroe Doctrine,—a thing of which no German thinks,—she would have against her not only the American but certainly also the British and possibly the French fleet. She would thus face sheer impossibility.

Germany wishes for nothing but the peaceful competition of all nations in industry, science, and art. Germany has not forgotten that her greatest thinker, Immanuel Kant, held up to her "eternal peace,"—*ewigen Frieden*,—as a distant, but not on that account irrational ideal. In the interests of this peace my words, appealing to the American sense of fairness, present this German view of the greatest of international problems.

LEADING ARTICLES OF THE MONTH.

HOW TO KNOW WHEN ONE IS AT THE POLE.

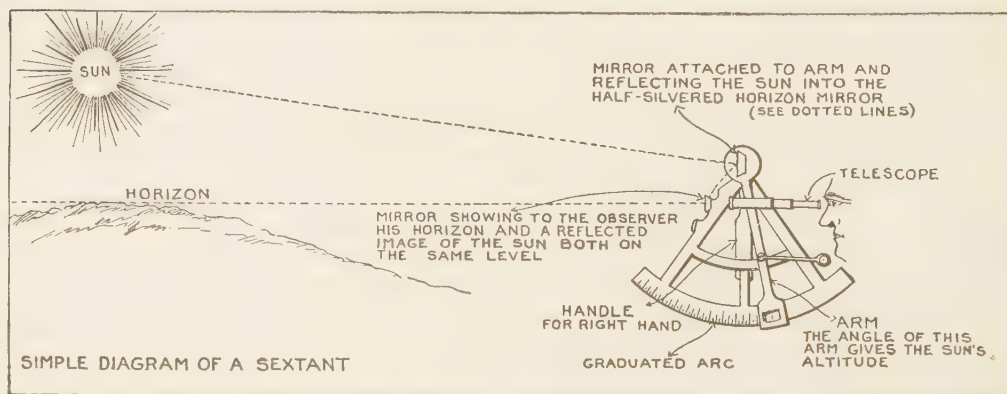
IN the numerous discussions of what may now be termed the polar question it is often the case that doubt is expressed as to the ability of the explorer to determine when he has actually reached the Pole. The Paris journal *L'Illustration* having been asked by one of its readers how it is possible to tell when one is "exactly or approximately at the point representing the terrestrial Pole," a writer signing himself "G. B." essays to answer the question "as clearly as is possible without the aid of mathematical formulæ." "It must be borne in mind," says this writer, "that the position of any point whatsoever on the earth is determined by two data,—longitude and latitude. The longitude of a place is the angular distance of such place from a meridian adopted as a starting-point." This prime or first meridian is commonly that which passes through Greenwich, England, but sometimes is that of the local capital, as in France, Paris, and in the United States, Washington. But at the Pole "all the meridians merge, so that one has no longer to consider the question of longitude."* Latitude is the distance of a place from the equator measured in degrees of the meridian. It is reckoned from 0 to 90 degrees, starting from the equator toward either Pole, according as the place is situated within the Northern or the Southern Hemisphere. To prove that one has reached the Pole it follows that

he must be assured that he has reached latitude 90 degrees.

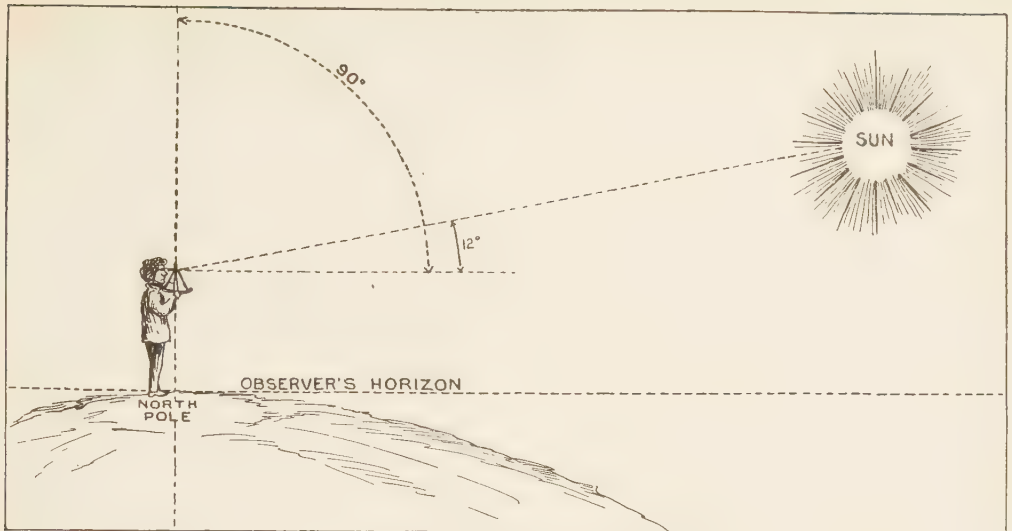
To determine the altitude of a place many methods are available; but most of them involve the use of instruments which are bulky, difficult to transport, and delicate to operate. There are not many instruments which can be depended upon for reliable service at the Pole under the difficult conditions amid which they must be operated, admitting that it is even possible to convey them thither. The practical instrument for the purpose and conditions is the sextant. Dr. Cook has distinctly stated,—at least the newspapers have announced,—that the instruments at his command were a sextant, an artificial horizon, and a barometer. Doubtless he had likewise with him a thermometer, since he has recorded some of the low temperatures experienced in the course of his voyage. These instruments are complementary to one another, the last three being indispensable to the proper use of the first.

The ordinary sextant,—that used by mariners,—is held in the right hand by a handle; but in such case it is far from being an instrument of extreme precision. For observations on land it is preferable and surer to mount it on a stand.

To ascertain the altitude of the extreme point reached by him, Dr. Cook had "two methods at his disposal: one, called the cul-



WHAT THE SEXTANT SHOWS.



OBSERVING THE SUN AT THE POLE.

mination of the sun; the other, known as circum-meridian observations, and based on methodical and minute observations of the stars, including the Pole-star. But at the North Pole, from March 21 to September 22, the sun is above the horizon, and the stars are therefore probably invisible, at least to the naked eye. Dr. Cook has said that he reached the end of his journey on April 21, 1908. We may accordingly assume,—bearing in mind the uncertainty as to the visibility or invisibility of the stars,—that he relied solely on observations of the sun. This was moreover the simplest operation, since a single observation, followed by elementary calculations, would give the desired results."

Each day at noon the sun attains the highest point of its apparent course toward space, its culmination; and "at the approach of this hour the explorer prepares for his observation." The *Illustration* writer gives a detailed description of the process of taking an observation of the sun by means of the sextant, which, owing to limitations of space, cannot be reproduced here, and states that "the angular altitude of the sun above the horizon on April 21, which should be that recorded by Dr. Cook, if he was at the Pole on that date, was 12 degrees." The observer has to correct his observation "for (1) errors of his instrument,—known to each observer after carefully verifying his apparatus,—also for (2) refraction, and for (3) parallax of the sun. After these simple mathematical operations the observer finds himself in possession of the height of the center of the sun

above the horizon, seen from the center of the earth at noon. The complementary angle of this altitude,—the difference between this altitude and 90 degrees,—is the zenith distance of the star,—that is, its angular distance from the zenith. To obtain the latitude it remains only to add to this zenith distance the declination of the sun,—that is to say, its angular distance to the zenith from the Pole."

But for observations by means of the sextant the first condition necessary to obtain the height of the sun is a real horizon; and "at the Pole, on the confines of the frozen sea, bristling with blocks of ice, there is no horizon. It is necessary, therefore, for the observer to have recourse to an artificial horizon. This is a mirror of blackened glass set in a copper mounting on 3 feet, furnished with adjustable screws. Perfect horizontality of the mirror is obtained by means of an extra-sensitive level."

As has been stated above, to ascertain with mathematical accuracy that he is actually at the Pole the observer must be able to determine with precision latitude 90 degrees, and with the sextant such an observation is practically impossible. It will be recollected that Dr. Cook announced that his last observation showed that he attained latitude $89^{\circ} 59' 46''$. He was then 14 seconds, or 434 meters, from the Pole. "I covered," he said, "those 434 meters." But even if he had attained a precision within 5 seconds, which, according to authorities whom "G. B." consulted is possible to experts in the use of the

sextant, he would still "have had, after turning his back to the sun, 155 meters to travel before arriving at the goal,—a discrepancy scarcely worth caviling about at the end of such a journey."

In the *Illustrated London News* for September 11 Mr. L. C. Bernacchi, who was physicist to the "Discovery" Antarctic Expedition, gives a similar though less exhaustive explanation of this interesting problem.

THE SEDAN OF LIBERALISM IN HOLLAND.

IN a year when the celebration of the four hundredth anniversary of Calvin's birth might have been expected to recall and re-emphasize in the minds of both Catholic and Calvinist the dogmatic differences of the Reformation, the picture of Calvinism and Catholicism clasping hands in a pact "to combat with the Holy Spirit the spirit of the French Revolution" might seem as strangely out of place as would an impressionist canvas in a Gothic cathedral. And yet this picture, with the incongruous alliance triumphant at the election in this year of Calvinistic jubilee, is presented in an article on the political situation in Holland which Dr. R. Besthorn, a well-known Danish writer, contributes to the *Gads Danske Magasin* (Copenhagen).

The alliance is not altogether new, for it has given a religious aspect to the elections, recurring every four years, for fifteen years or more. But it scored its first substantial victory at the elections held last June.

Holland is to-day the Land of the Bible,—the battleground of conflicting dogmas. One-third of the population are zealous Catholics, the rest are Calvinists of various shades. The Catholics and Calvinists are born adversaries. There are to-day many followers of Calvin who honor the old saying: "Rather the Infidel Turk than the Papist." And yet these discordant elements have found a common ground on which to combat liberalism under the leadership of Dr. Abraham Kuyper.

Dr. Kuyper, who is the founder of the University of Amsterdam and publisher of the *Standard*, is regarded as Holland's best-known journalistic agitator. He entered the fight he now has led to victory twenty years ago as leader of the Orthodox Calvinistic party. In the elections of 1901 he founded what became known as the Anti-Revolutionary party, which, joining the "Historical-Christians" party and the Catholics, formed the Conservative wing of the Dutch electorate. It was in 1901 that he promulgated his platform in which he roughly divided the political parties in "Christians" and "Heathens," the "Christians" being the Con-

servatives and the "Heathens" the Liberals. His anti-revolutionary program is outlined in a speech he delivered at Siedrecht during the 1901 campaign. From this the writer quotes:

The battle we conduct should be a fight for principles. Our warfare is directed not against the Liberals as individuals, nor against their interests,—we make war on the liberal conception of life and of the world. The Liberal party is almost everywhere in Europe a doomed party. It still controls in France, but there in reality liberalism is not liberal. The Liberal party is from its very origin "non-Netherlandic." It is an offspring of the French Revolution. This revolution has done some good, but that is no reason why we should justify the French Revolution as a revolution. Its guiding principle was evil,—it was "*Ni Dieu, ni maître*." The liberalism is contrary to God's decrees. . . . Does there exist an Almighty God or not? If the answer be in the affirmative, then we must worship God in the family, in the State, everywhere. The Liberals are seeking to weaken the sovereignty of God. In the Chamber I have never heard any reference to God's authority. The spirit of materialism is weakening the people. Christian morals are wrecked by the Parisian spirit. The Holy Spirit must combat the spirit of the French Revolution that the people may be blessed.

In the campaign that came to a close last June Dr. Kuyper still held to the former division of the political parties into "Christians" and "Heathens."

Dr. Kuyper conducted the campaign with great energy. In the most forcible language he summoned the "Christians" to combat the "Heathens." "Will you kneel with us before the image of the Christ?" he cried.

The election was held on June 23. The result indicates how well gauged was the appeal. The election has been called "the Sedan of liberalism in Holland." Out of 100 districts the Conservatives carried 60, the Liberals, who had been in the majority, 40. The Conservative seats in the Second Chamber were divided between 25 Catholics, 23 candidates of the Anti-Revolutionary party, and 12 "Historical Christians." From the other camp the Liberals returned 25, the Democrats 8, and the Socialists 7 members of the Chamber.

FLYING IN AN AEROPLANE.

IN connection with the group of articles published in this number of the *REVIEW OF REVIEWS* relating to the construction and use of aeroplanes the experiences of Mr. Glenn H. Curtiss, the American winner of the recent contests at Reims and Brescia, are of special interest. A brief record of these experiences appears in the October number of *Motor*. In the article which he contributes to that publication Mr. Curtiss confesses his faith in the possibilities of flying machines for pleasure and sport. The air, he says, is the great public highway. In the upper atmosphere there are no speed laws (as yet), no rough or dusty roads, no railroad crossings, fences, ditches, or hills, while the aviator is assured of plenty of oxygen, the best of scenery, and an exhilaration not to be gained by any other mode of travel.

Coming down to the practical aspects of aviation Mr. Curtiss records his opinion that the successful operation of the steering device of an aeroplane is only a matter of skill on the part of the operator, which can be gained by practice. By steering Mr. Curtiss means turning to the right or left and causing the machine to glide up and down or stay on an even keel, as desired. The balance, however, is a more difficult problem. In the absence of an automatic device for preventing the machine from tipping sidewise, Mr. Curtiss has a preference for a device actuated by a natural movement, and he therefore makes use of what is known as the "shoulder control" on his aeroplanes. A light steel frame, or crotch, is engaged by the operator's shoulders, and it transmits the movement by means of wires to the controlling surfaces of the wing tips, inclining one up and the other down, thus bringing the machine back to a normal position. With this arrangement the operator has only to "lean to the high side,"—that is, incline his body toward the side of the aeroplane which has become elevated. This is the most natural movement, and the shifting of the weight helps restore the equilibrium.

In the following paragraphs Mr. Curtiss offers some practical suggestions to amateur aviators:

For steering, the regulation steering wheel, such as is used on automobiles and motor boats, would seem to be preferable to the lever or tiller and would be easier for the beginner to become accustomed to. For steering to the right and left the wheel is operated in the same manner as a car or boat, and a wire cable from the

wheel turns the rudder in the rear. In my machines the wheel is mounted on a post, which is also connected to the horizontal controlling surfaces in front, and in addition to turning the wheel for right and left steering it may be moved forward and backward, thus accomplishing the vertical steering by quite a natural movement.

To illustrate, suppose the machine while in flight begins to dip forward and go down. The operator naturally tries to restore balance by moving his body backward, thus pulling the wheel back and increasing the inclination of the front controlling surfaces and bringing the aeroplane back to an even keel. If the machine rises in front against his desire it is his natural impulse to move forward, which tilts the front control down and brings the machine back once more to a normal position. With this system of controls it is not so difficult to learn to fly.

To make a good landing is the most important point in aeroplane operation. An amateur is all right as long as he can keep away from the ground. An aeroplane, like a bird, should always alight headed into the wind. Birds invariably do this. I have found that my best landings are made by keeping up the power and flying along within a few feet of the ground before shutting off. In this way the shock is very slight, no matter at what speed the machine is flying, as the contact with the ground is made at such a slight angle. A good landing may be made after gliding down from a height, but it is much more difficult than to land with the propeller in motion.

Ordinarily an aeroplane should be equipped with just sufficient power to fly it, which is really the most sensible plan, as there are no hills to climb and no bad roads to encounter, and for ordinary purposes a speed of 45 miles an hour is too fast, as landings are so much more difficult to make.

Flying is like swimming, in that when once learned it is never forgotten. Flying in the wind requires the greatest skill. There is no such a thing as a steady wind; it is more or less gusty, even on the water, and especially on land and near the ground. A beginner should never make a start when the slightest wind is blowing. The moment an aeroplane leaves the ground it starts to drift with the wind. If the direction of the wind is at right angles with the course of the machine the 'plane must be kept headed diagonally into the wind sufficiently to keep on the desired course. Plenty of "sea room" is necessary for landing under these conditions.

As to the probable development of the aeroplane, Mr. Curtiss says:

We can hardly expect to see railroads, steamboats, and motor cars entirely displaced by flying machines as has been expected by some, but it would not be surprising if within the next ten or fifteen years the ocean were crossed by an aeroplane. It will not, of course, be like the delicately built machine of to-day, but a large, strong structure with a body like a boat which will float and stand rough weather.

WHAT WAS BÜLOW'S FOREIGN POLICY?

THE *Berlin Woche* devotes the first article of a late issue to an estimate of Prince Bülow's activities and achievements in the sphere of foreign politics and, incidentally, we get a bird's-eye view, as it were, of the European political situation in its recent developments.

The writer, Heinrich Friedjung, of Vienna, starts out by remarking that Prince Bülow retires with undiminished personal prestige. It is a rare phenomenon that a statesman should be as well content with the "funeral oration" of his opponents as of his friends.

The speech of the Conservative leader in justification of his party's vote in the Reichstag did not sound like an accusation; it was rather a plea in self-defense to parry the reproach that the Conservatives had, without proper grounds, caused the fall of a gifted and deserving Minister. In the chief domain of his activity, that of foreign affairs, the fourth German Chancellor met with no opposition even at the close; as, indeed, he had at no time encountered any noteworthy opposition to his external policy. In that field he was always supported by the confidence of the Reichstag and the nation. Even when it became apparent that Germany's standing as a world-power had sustained a serious blow in consequence of England's restrictive policy the blame was not laid at his door; people were inclined to attribute it to other irresponsible influences.

Up to the time of the last crisis, brought about by the annexation of Bosnia, "England's star in the diplomatic horizon was steadily in the ascendant, while Germany saw itself thrust toward the rear."

As far back as 1903 England concluded an agreement with Italy in regard to the neutrality of the Mediterranean; subsequently the important treaty with France, April 8, 1904, which was to decide about the future of Egypt and Morocco; then followed on the 12th of August, 1905, the ten years' alliance with Japan; and, finally, the crowning accomplishment, the formal division of Asia, which was consummated between England and Russia in August, 1907. And it almost seemed as if Turkey, too, would withdraw completely from Germany's influence, when England, immediately after the revolution of the Young Turks, July 24, 1908, became guardian and leader on the shores of the Bosphorus. Here, to be sure, the triumphal march came to a halt, since the vigorous policy of the Austrian cabinet, in spite of English intrigues and thanks to the aid of its German ally, succeeded in getting Turkey to acknowledge the annexation of Bosnia.

It is a problem to be solved by the historians of the future, this German writer believes, whether the diplomacy of Prince

Bülow did all that could be done to prevent that network of treaties.

The truth is that the Chancellor did, indeed, faithfully administer Bismarck's glorious diplomatic heritage, but was unable to augment it. When that net was to be drawn closer during the crisis of last winter Austria-Hungary and, as its ally, Germany also presented the points of their bayonets, and thus the superfine project was frustrated. But could it not have been prevented that England, Russia, and France should enter into such close union and be enabled to contrive the plan of the fine conference which was to decide Bosnia's fate, where it was contemplated to sit in judgment over Francis Joseph,—as a punishment for the inviolable faith he had kept with his German ally?

Attempts have been made in England, the writer proceeds, to prove that Prince Bülow neglected to put Germany on a footing of friendliness that could be depended on with the island realm. In 1899, at the outset of the Boer War, when England's perplexities reached their climax, the Berlin cabinet received an offer of alliance from London; but the Chancellor declined, mainly because of the enthusiastically friendly sentiment of the nation for the Boers. In fact, no one could have advised the German Government to form a rampart for England's predatory expedition. At that time on the other side France and Russia were ready to join Germany in an action which was aimed against England. It was proposed to the German cabinet that common diplomatic measures should be taken in favor of the Boers. The Berlin cabinet was willing, as a matter of principle, to agree to this, but demanded a sort of collateral security on the part of the French; as a strengthening of the Treaty of Frankfurt they were to reiterate their renunciation of Alsace-Lorraine; for it was possible that in this proceeding against England, Germany might be left in the lurch by the two other powers and would have to bear the full brunt of England's enmity. But this condition the French Government refused,—and it happened thus that after the Boer War Germany had no protection on either one side or the other. This was not dangerous as long as the two forces were not combined. But then followed the surprising Anglo-French Treaty of April 8, 1908, which placed Germany in an unpleasant predicament in regard to Morocco. It must be accounted to the credit of Emperor William and Prince Bülow that they did not allow themselves to be intimidated; they made

the forcible demand that the extension of the power of France in Morocco must be submitted to the examination and approval of the nations concerned. It could not be permitted that the two western powers should arbitrarily dispose of North Africa in such a way that, as Anatole France humorously remarked, England should give away what she did not possess. But the French Minister, Delcassé, cared nothing for treaties or justice, but hastened the war-alliance with England. He flatly declined the calling of a conference in regard to Morocco, thereby almost precipitating a war between Germany and France. The French, however, regarded such a war as a murderous folly and Delcassé was dropped July 6, 1905.

This was the zenith as well as the turning-point in Prince Bülow's foreign policy.

A great success had been achieved and proof at the same time given that the military supremacy of the German Empire was unimpaired, that France feared a passage at arms with its eastern neighbor. It was also evident that the French are no longer a vain people, athirst for war, but are desirous of enjoying prosperity and civilization in peace. The question now arises whether it would not have been well if Germany had voluntarily offered them what finally fell to their share after arduous diplomatic struggles at Algieras and through the Franco-German Treaty of February, 1900. For only then was the French-English-Russian *entente* riveted closer and closer.

Certain it is that in the last great foreign action Bülow rose equal to all the claims of political energy. While Austria-Hungary faced the dangers of a war in the Balkans, and even with Russia, with vigorous courage it found the needed backing in the aid of its German ally.

Prince Bülow, says the writer in conclusion, leaves the scene of action at a singularly auspicious moment, when the status of the

Central European Alliance has, beyond doubt, been fortified without the necessity of a resort to arms. The Moroccan difficulty, too, has been settled by the Franco-German Treaty of February, 1909,—and thus Bülow's successor finds affairs in good order at his accession.

The threatening cloud in England will have to be steadily and closely watched, and it was not and is not in the power of any single individual to completely adjust the differences which are inherent in the general condition of things. On this point neither blame nor responsibility attaches to Bülow, and the next Chancellor will, like him, only be able to hold out and act as pacifier.

A FRENCH CHARACTERIZATION.

In a recent issue of the *Revue des Deux Mondes*, André Tardieu has a long character sketch of Prince Bülow, dealing with the Chancellor's home policy in the first part and with his foreign policy in the second.

For nine years, says this French writer, Prince Bülow was Chancellor of the German Empire, but he directed the foreign policy of the Empire for twelve years,—that is to say, from 1897, when he succeeded Baron Marschall

von Bieberstein, to July, 1909.

With the exception of Bismarck, he held the post of Chancellor longer than any of his predecessors, and no post in Europe is more arduous or more difficult to fill. He had the happy fortune to unite in himself the two leading tendencies of German imperial politics. He was Conservative in the parliamentary sense of the word, anxious about the great national needs and the indispensable principle of authority, and he was audacious in the social acceptance of the term. He was powerful because he was at the same time for the navy and for workmen's pensions. Under his guidance the home policy of Germany remained true to its essential traditions. A constant concern about the military forces, the development of the army and the creation of the fleet; a few insurance laws; great anxiety about Conservative interests in conse-



PRINCE VON BÜLOW.

quence of the close ties between the nobility and the throne; brutal assertion of authority over the vanquished, notably the Poles; a constant compromise between the will of the Kaiser and the will of the people; a prodigious expenditure of diplomacy at home,—these are some of the chief traits of Prince Bülow's policy. But they are also the chief traits of German policy and of the German character.

During the twelve years that he directed the foreign policy of Germany, Prince Bülow won for himself an eminent place among contemporary statesmen.

He possessed all the intellectual qualities which charm our epoch,—a perfect lucidity, a rapid perception of the needs and contingencies, brightness of imagination, and simplicity of attitude. He pleased also by his defects,—inconstancy, an inexact estimate of moral force, an obstinate resistance to argument, a real indifference to the demonstration of logic. In his diplomacy his qualities and his defects showed themselves in turn. He sometimes provoked useless conflicts, but he always retreated before their extreme consequences, proving that in him political passion found its bridle in the consciousness of human duty and in the cult of civilization.

THE LAST EMPRESS OF THE FRENCH.

THE history of France is unique among the histories of the nations of Continental Europe by reason of the extent to which it has been shaped by feminine influence. Often the destinies of the country have been held in the hollow of the hand by the legal consorts of the occupants of the throne; but more frequently they have been wielded by "the gay companions of the idle hours of emperors and kings." For centuries the morals of the French court were such as to be a byword even amid the immorality of the times; and the court of Napoleon III. included "many whose characters were not concealed by their talents or their looks." From 1860 to 1863, when the brilliant Austrian, Princess Pauline Metternich, carried the court of the Second Empire to the giddy height of frivolity, "the dividing-line between the grande monde and the demi-monde was almost entirely obliterated." At the costume balls "all decency was often outraged," and "in point of morality there was not much difference between some of the *lorettes* who mixed in court circles and the painted courtezans who frequented the Jardin Mabille." Mr. R. F. O'Connor, from whose article in the *Catholic Quarterly Review* the foregoing excerpts have been taken, holds that "nothing redounds more to the credit of the Empress Eugénie than that she should have lived for nineteen years in this *milieu* and come out of it with her moral reputation untarnished."

Born at Granada in Spain, May 5, 1826, and inscribed in the baptismal register as Maria Eugenia Ignacia Augustina, daughter of Don Cipriano Guzman Palafox y Portocarrero, Count of Teba, and of his wife, Maria Manuela Kirkpatrick y Grevigné, the future empress was known in childhood simply as

Eugenia Palafox. Her father subsequently inherited the title and the ample means of his brother, the Count de Montijo. In 1834, when the cholera was raging in Spain and there was also dangerous political agitation in Madrid, the Count sent his family for safety to France. The little Eugénie, as it will now be convenient to call her, was therefore eight years old when she first set foot in the country in which she was for nineteen years to reign as Empress. In 1839 her father died, and she was then sent to a school at Clifton, near Bristol, in England.

The widowed Countess married her elder daughter Francisca to the Duke of Berwick and Alba, and then cast about for a desirable match for the younger one. Eugénie was exceptionally beautiful. Prosper Mérimée speaks of her when about eighteen as "marvelously beautiful, with just that shade of hair that Titian loved." Later the American Minister at Madrid said: "Looked upon simply as a woman, she was the most perfect creation I have seen anywhere."

There is some doubt when she met Napoleon for the first time; probably it was in 1849, when the Countess de Montijo and her daughter returned to Paris. Napoleon soon became infatuated with "the handsome Spaniard"; and after an ardent wooing, and "despite the disapproval of his family and the opposition of his ministers, the imperial suitor was true to his plighted word," and the marriage took place January 30, 1853. Of her career as Empress Mr. O'Connor remarks that "the searchlight of criticism, though often projected upon her with malevolent intentions, failed to reveal any big blots."

The worst fault they could impute to her was setting a pernicious example of luxury and fre-

quent changes of fashion which all France followed, though she assured Dr. Evars, of Farnborough, that she never spent more than 1500 francs on any dress, and stated in a letter to an American friend that only three times in her life did she wear a dress that cost as much as forty guineas, one being her wedding dress and another her costume at the baptism of the Prince Imperial.

Against the magnificence and extravagance of her court must fairly be set her numerous charities, the full extent of which can never be known. She divided the 250,000 francs included in the Emperor's wedding present among the maternity societies and the Incurable Hospital; and the popular collection of 100,000 francs (made up of five-cent subscriptions) for a present to the Prince Imperial was at her wish employed in founding the Prince Imperial Orphanage. She gave not only her money but her personal service also.

During the cholera epidemic of 1866 she won the admiration of all France by her heroism. The scare was at its height at Amiens when she arrived there. She immediately "went under fire," as she expressed it, visiting the victims in hospital and showing herself without the slightest fear of death. . . . A few months later when she appeared at Nancy to represent the Emperor . . . tales of Amiens were on every one's lips. Her slanderers for the moment were dumb.

A devout Catholic, both by birth as a Spaniard and as Empress of France, she was bitterly opposed to her husband's anti-papal policy. Unable to prevent the alienation of the papal states, she secured for a time the continuance of the French garrison in Rome. She was three times Empress Regent: in 1859, during the Emperor's absence in the campaign against Austria; in 1864, when the Emperor visited Algeria, and in 1870-71, during the Franco-Prussian War. At the time people called the last conflict "her war"; but "all the world now knows it was long foreseen and arranged by Germany." The Empress' conduct during the trying autumn of 1870 has been described by Merimée as "truly saintly" and deserving of "all admiration." She turned a great part of the Tuileries into a shelter for the wounded and divided her time between the Council of the Regency and hospital work. When the end came the departure of the Empress from the palace was so hurried that she left "without even a handkerchief." The services rendered to her by the American dentist Dr. Thomas Evans in enabling her to reach England "earned for him the title of 'the one hero' in her career."



THE EMPRESS EUGÉNIE.

Mr. O'Connor closes his article with an eloquent passage, in the course of which he observes:

The ex-Empress, now in her eighty-fourth year and bereaved of husband and son, has . . . long outlived the empire of which she was the *decus*, if not the *tutamen*, her goodness and grace counterbalancing its mistakes and misdeeds; fairest of the fair among all the court beauties of her reign, a vision of loveliness amid much that was unlovely. She has lived and moved in the Vanity Fair held betimes at Saint Cloud, Compiègne, Fontainebleau, and the Tuileries. . . . All the splendor and profusion have vanished like a dissolving view; revels and revelers have passed away, while one who filled a leading part among the *dramatis personæ* . . . must have realized in the retrospect of a long life the truth of the words: *Vanitas vanitatum, et omnia vanitas*.

Dr. Evans has related in his "Memoirs" the exciting narrative of the Empress' escape to Trouville and thence across the Channel to England in Sir John Burgoyne's yacht. Before she reached the coast the Third Republic had been proclaimed.

It was not long before France saw two of her finest provinces wrenched from her by the victors, who imposed a war indemnity that would have crushed any other nation. Then came the *année terrible*, when the Communists held Paris until dislodged by the Versailles troops after the massacre of their hostages, including Mgr. Darboy, Archbishop of Paris, who had celebrated mass for the Emperor and Empress and Prince Imperial on the eve of the departure for the seat of war of the first and last named, who were fated never to return.

A SCULPTOR OF THE WEST.



THE STATUE OF ALASKA, PERSONIFYING "MINING."

FINN H. FROLICH, commissioner of sculpture for the Seattle Exposition, is a Norwegian, although he has lived most of his life in America. He is a picturesque character and a man of parts. He came under the notice of D. C. French, the distinguished American sculptor, as a boy, serving French as studio boy for a number of years. Mr. French then sent the Norwegian lad to Paris for a course of study at the Beaux Arts.

After Mr. Frolich's return from his studies at Paris he worked for six years in the studio of Mr. French, assisting this sculptor with many important commissions. He helped to make the great 70-foot statue of the "Republic," and he assisted in the building of the quadriga for the peristyle, two important works still remembered at the Chicago World's Fair.

The Norwegian sculptor afterward assisted Perry with the "Fountain of Neptune," placed in front of the Congressional Library at Washington in 1897. He returned to France in 1898 to assist in the making of the Proctor quadriga on the American building at the Paris Exposition.

In 1898 Mr. Frolich went to Seattle, and

it was in that year he established his School of Design, which is now an interesting colony of about a hundred artists. Mr. Frolich believes that there is a demand for a greater school of Arts and Crafts, such as was founded in London in the '70s by Burne-Jones, William Morris, Rossetti, and the other Pre-Raphaelites. He expects to interest certain Western financiers in his project to establish a similar school in Seattle.

Frolich's earlier achievements include a great head of Kruger, made just before the Boer War, when his spirit of adventure took him to Africa. Afterward he held a commission in one of Kruger's regiments. Soon after that he made a portrait statue of a Zulu chief's daughter, the first such work ever done from life, and in return for which the old Zulu chief promptly offered his daughter. There is, however, no record that the sculptor ever brought the dusky lady home as an African trophy.

Mr. Frolich made the strikingly hand-



MR. FROLICH AT WORK IN HIS STUDIO.

some medal which was distributed among the Norwegians of this country a few years ago commemorating the coronation of Norway's King. He also did much important work for the world's fair at St. Louis.

Mr. Frolich's most discussed contribution to the Alaska-Yukon Exposition is his great bust of J. J. Hill, presented to the fair by the people of Minnesota, and unveiled on August 3, "Minnesota Day." Mr. Hill posed for the bust at his home in St. Paul in the early summer. The work is of heroic size,—the largest ever cast in bronze.

Another fine example of Frolich's work at

the exposition is a monument to the Norwegian composer Grieg, the gift of the Norwegians of Seattle. In gratitude for his efforts in their behalf the fellow-countrymen of the sculptor have given him the *Viking* ship built for the fair by the Norwegians. This Mr. Frolich expects to fit with an engine to use for cruising next summer.

Mr. Frolich's creative powers are well expressed in his fine fountain, "The Spirit of the Pacific," the first work of art seen upon entering the grounds; in the statue of Alaska personifying "Mining," and in the South Sea Island statue to "Hunting."

THE WONDERS OF SUBMARINE LIFE AS SEEN THROUGH THE GLASS-BOTTOM BOAT.

FROM time to time demonstrations are given of the fact that the marvels which emanated from the fertile imagination of the late Jules Verne were but anticipations of the development of human knowledge and progress. The conquest of the air has for some time been an accomplished fact; and now it is known to scientists that the descriptions in "A Thousand Leagues Under the Sea" of the wonders of submarine life in no wise exaggerate the realities of nature. It is, however, one thing to know that scenes of marvelous beauty exist on the sea-floor and quite another to be able to see them with the eye as well as with the imagination. In the *National Geographic Magazine* for September Dr. Charles Frederick Holder describes a means whereby it is possible not only to see but also to photograph submarine life. It appears that about twenty years ago, when Dr. Holder first visited the channel islands of southern California, he was "impressed with the beauty of the kelp-beds and the marine fauna, and had a glass-bottom box made and also planned a glass-bottom boat." He says:

From this, and doubtless the suggestions of others as well, has grown an extraordinary avocation, that of the glass-bottom boat. The capital invested in all probability is nearly \$100,000, and the income is a good and increasing one, due to the fact that the attractive island of Santa Catalina is the Mecca for thousands of tourists annually, most of whom go out in the glass-bottom boats.

When you land in the beautiful Bay of Avalon, about thirty miles from San Pedro, the port of Los Angeles, you are met not by hackmen but by men with glass-bottom boats:

"Here you are! Marine Jimmie's boat, only fifty cents." "Take the *Cleopatra*!" or "Right away for the Marine Gardens!" And the steamer is met by these strange craft, that look like the old-fashioned river side-wheelers. These boats . . . range from rowboats with glass bottoms to large side-wheel steamers valued at \$3000. There is a fleet of them, big and little, and they skim over the kelp-beds, and have introduced an altogether new variety of entertainment and zoological study combined.

The boat is made by having the bottom to the extent of the boards beside the keel, to the width of three feet, from bow to stern replaced by thick plate glass, set inside of a railing so that the glass cannot touch the bottom; even if it did, the observer looks down through a well, his elbows comfortably resting on the padded edge. As the boat moves slowly along, every object on the bottom can be distinctly seen, as the glass magnifies it. The best view, doubtless, is had from the small boats, as they can go well inshore; but both have their advantages.

The island of Santa Catalina is about sixty miles in circumference, and it is lined with a forest of kelp, known to scientists as *Nereocystis*, "a huge vine whose leaves rise and fold and unfold in the water, the abiding place of countless animals of all kinds." Many of these animals are peculiar to this region; and the accompanying illustrations are from photographs taken under Dr. Holder's supervision of objects seen through the glass-bottom boat. The kelp itself "forms a beautiful picture, its rich olive hue when it catches the sun looking not unlike a great band of amber against the vivid turquoise of the water." The effects are in the fullest sense kaleidoscopic; and "as the boat moves over the shallow water exclamations come



BLACK AND WHITE SEA FLOWERS AS SEEN THROUGH THE GLASS-BOTTOM BOAT.

quick and often as one scene melts away and another appears, and the entire range of color is exhausted before the trip is over." Here will be seen a giant California star-fish, and near it the large sea-cucumber, "lying on the rocks prone and motionless." Timid, constantly changing color, and hideous to a degree, may be seen through the glass window the "Mephistopheles of the sea," the octopus, "searching for crabs or anything that it can lay its tentacles upon." Some of the fishes actually seem to have become accustomed to the glass-bottom boat. One of these is thus described:

In the crevices of the rocks you may catch brilliant flashes of livid red. This is the Garibaldi, a fish resembling the angel fish of Florida to some extent. . . . It is very sociable, and comes out, eying the boat and doubtless familiar with the strange double row of faces that are looking down at it.

Among the submarine marvels viewable through the glass-bottom boat is the phosphorescent jelly-fish, with tentacles sometimes fifteen feet long, "a veritable comet, and at night a phosphorescent meteor." Alexander Pope wrote:

Learn of the little nautilus to sail,
Spread the thin oar, and catch the driving gale.

Of this beautiful little animal Dr. Holder writes:

If we are very fortunate we shall see the paper nautilus, the most beautiful of all the mollusks. . . . We may also see the animal leave the shell and move about, flushing a pale red, now a vivid blue. This is the animal that is supposed to raise its sails and float on the seas, "a thing of beauty and a joy forever." It is sad to break up these delightful fables, but the sail merely clings to the shell, and the shell is merely the egg-case or float for the strange creature.

Then there are the strange fishes that mimic leaves, rocks, and weeds so perfectly that it is impossible to distinguish them. They are "black, red, yellow, and white, perfect imitations of the rocks on which they lie, ready to take any kind 'of a lure."

Apart, however, from the mere entertainment provided by the glass-bottom boat, there is the distinct help which it renders to scientific research. By its aid, after great storms, "the voyager, peering down through the glass window, sees strange and weird

animals new to science or so rare as not to be seen alive by one in fifty thousand."

The big glass-bottom boats hold as many as a hundred passengers and travel up and

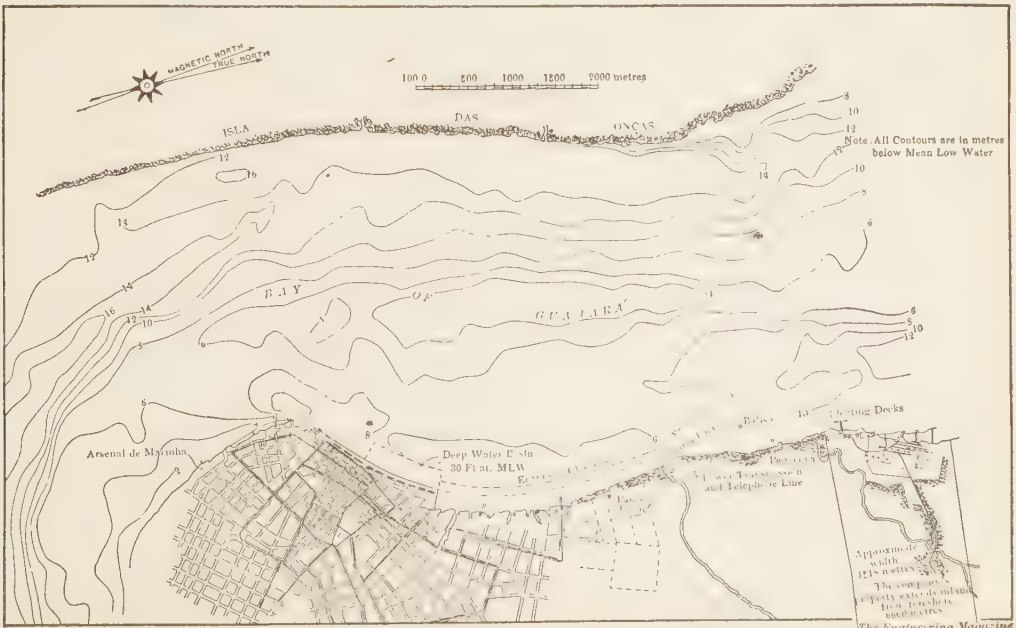
down the coast. They even "visit the sea-lion rookeries and allow the voyagers to photograph the animals." Surely here is a new and valuable ally to education.

THE PORT OF PARA AND ITS POSSIBILITIES.

THREE thousand miles from New York, three thousand miles from Buenos Aires, three thousand miles from Lisbon, nearly three thousand miles from Iquitos, near the head of steamboat navigation on the upper Amazon, and four thousand miles from London sits Para at the only navigable mouth of the Amazon, without a possible rival on a coast of nearly a thousand miles. In the issue of the REVIEW for July last it was stated that the development of this city and port was a pet scheme of the late President Penna. Particulars of the great construction works now in progress at Para, together with observations on the almost limitless commercial possibilities of the port, form the subject of a paper by Mr. David F. St. Clair in the *Engineering Magazine* for October. He says northern Brazil "has three unique possessions,—a practical monopoly of the crude rubber of commerce, the world's greatest river valley, and the city of Para." He includes Para because it commands the

other two; for Para "fixes the price of nearly \$100,000,000 worth of crude rubber, nearly half of which is consumed in the United States." He regards Para as "one of the unique geographical and commercial centers on the globe," and believes that it will become "more to the Southern Continent than New Orleans can ever be to the United States." The only thing that Nature seems not to have given to Para is a modern deep seaport.

The city is located on the Para River, an estuary of the Amazon, and is sixty-five miles from the open sea; but the deep water comes up to within three or four miles of the city. Above the city and between the main stream of the Amazon the river is deep enough for the navigation of large ocean-going steamers. The main mouth of the Amazon is not navigable on account of shifting sand-bars and a tremendous bore; therefore the port of Para is the sole feasible port of the Amazon mouth. But at mean low tide the present depth of the water at the quay walls in front of the city is only 19.7 feet. Because of this fact the growing shipping



MAP OF THE HARBOR OF PARA, BRAZIL.



A PARA RIVER STEAMER IN DRY DOCK.

of Para has had to be carried on by an expensive system of lighterage, or else freight has had to be transferred from river steamers to ocean steamers under the difficulties of wind and tide.

Owing to the great variety of its uses, rubber has become one of the "necessaries" of commerce, and it is to this fact that Para owes its great developments. It will be remembered that about six years ago a war was impending between Brazil and Bolivia over the boundary of Acre. To quote Mr. St. Clair:

Rubber was at the bottom of it, and this scare flashed a limelight upon Para, and the Amazon valley. It awoke not only Brazil and Bolivia. . . . It did more. It aroused the public spirit of the city of Para and caused its great rubber exporters to move with the power of an avalanche for a modern port. Many years previous a municipal commission had made a survey of the port and charted it, with its river currents and tides. With this survey as a basis the federal government approached an American corporation building tramways and railroads in Brazil. This corporation is headed by Perceval Farquhar, a native of York, Pa., who is reported to have invested \$150,000,000 in the industrial and commercial development of the republic. . . . The chief engineer is M. L. Quellenec, who was consulting engineer of the Suez Canal.

The contract calls for two quay walls: one 3280 feet long, and with a depth of water in front of 30½ feet; the other, 1640 feet

long, with a depth of 10 feet in front,—the former for deep-sea ships and the latter for Amazon River boats; also a length of 3875 feet of shallow wall, partly for small boats and partly to improve the city front. The process of construction is as follows:

A trench is dredged (by bucket dredger) in the hard clay to receive the riprap stone for the foundation,—about a meter in thickness. Divers level off this stone. Railroad rails are then laid on each side of the trench on the riprap at the proposed elevation of the upper surface of the stone. Other rails are moved along these rails lengthwise of the wall, and the stone is brought to the under side of the rails or moving templates across the entire width of the base of the wall. Blocks are then brought forward by the Goliath and by the help of the divers are placed in proper position on the riprap foundation. A "topping crane" follows and brings the wall up to the coping level. The space between the quay wall and the shore will be filled in with sand. . . . Spacious fire-proof warehouses are to occupy the entire length of the port.

The Port of Para Company will take over the port and operate it (under an arrangement with the government) when 100 meters of the sea-wall have been finished, which will be about the time this number of the REVIEW appears. It is confidently expected that when all the works are finished the port will, in point of facilities, equal any other port in the world. The same company is constructing the Madeira-Mamoré Railway, 260 miles long.

Under the treaty concluded between Bolivia and Brazil, Acre, with its rich rubber forests, was ceded to the latter for \$2,000,000; and Brazil agreed to afford Bolivia every commercial facility of the Amazon and the port of Para.

Concerning the future of the port Mr. St. Clair has no doubt. He writes:

Bolivia, east of the Andes, is one of the richest regions of the world in timber, rubber, and minerals, and it has some fine agricultural lands. It has no outlet on the Pacific Coast. Its only outlet is through the Amazon and Para. East of Bolivia is the great Brazilian state of Malto Grosso, a territory nearly three times the size of Texas. . . . It is said that a great deal of this territory will grow as fine, long-staple cotton as Mississippi or Alabama. The Brazilian Government has matured a plan to connect by canal one of the tributaries of the Amazon with one of the tributaries of the La Plata in this state, thus opening an all-inland water route from Para to Buenos Aires, a distance of nearly 5000 miles. . . . Peru has little Pacific Coast trade now and the development of this country must pour its wealth into Para. But if Brazil and Para had none of these Andean republics to draw trade from the development of the Brazilian Amazon Valley alone

must in time amount to untold wealth. In the states of Para and the Amazonas and the federal territory of Acre there are near the water's edge ten million rubber-bearing trees. These trees, if properly tapped, will live indefinitely and steadily increase their yield.

At the present time seven lines of ocean steamers, six to Europe and one to New York, enter the port of Para. Then, the Amazon itself is truly an inland sea, being 40 miles wide at many points; and for nearly

2000 miles of its course it has a depth of 60 to 200 feet.

The Para merchants have awakened to the fact that "if the city is to enjoy the full fruits of a monopoly of rubber the city must vulcanize and manufacture goods of the great bulk of the raw rubber that it now exports." Accordingly, a bill has been introduced into the Brazilian Congress to exempt rubber factories from taxation.

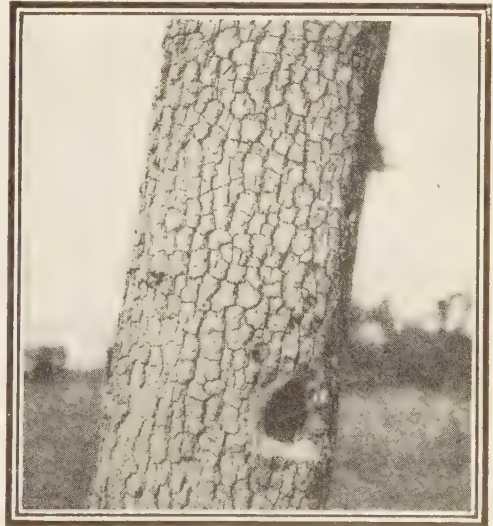
QUEBRACHO FOR TANNING EXTRACT AND RAILWAY SLEEPERS.

READERS of the REVIEW will recollect that in "The Story of Leather and Its Uses," which was printed in our issue for October, it was stated that the most remarkable of the new tanning agents was the extract of quebracho, "which makes the best leather in the world." Like mahogany, quebracho is one of the hard woods of the Americas; indeed, the very name itself is a contraction of a colloquial Spanish and Portuguese term, *quebra-hacha*, signifying "axe breaker." The wood excels in strength even the northern oak, and it really hardens with age. Logs of quebracho felled and left to lie in the forest have been found twenty-five years afterward absolutely sound. When railway-building away from the coast was begun in Argentina the natives found quebracho wood by far the most serviceable material for sleepers; and its reputation has grown so rapidly that to-day miles of Argentine sleepers may be found on European railroads. Thus, curiously enough, while quebracho extract is used for tanning so pliable a substance as morocco leather the wood itself is employed, on account of its toughness, for purposes demanding the greatest rigidity.

According to the *Bulletin* of the International Union of American Republics, although in various countries several trees are known locally as quebracho, the genuine tree is to be found only in Brazil, Paraguay, and the Argentine Republic. There are three varieties. One of them has no significance botanically or commercially; the other two are important and are known locally and in the trade as *Quebracho colorado* (red) and *Quebracho blanco* (white), respectively. The better quality of tanning extract and railroad sleepers are both obtained from the red variety. The white is not so straight,

and it furnishes less extract; but the logs are used for fence-posts and axles, and from it is obtained a drug which is used in bronchial diseases. The habitat of the quebracho is the Chaco, "the mysterious no man's land of the early explorers," many of whom lost their lives there, while others returned with wonderful tales of adventure. We read in the *Bulletin*:

To-day there are two Chacos, one belonging to Paraguay, the other to the Argentine Republic. . . . "El Chaco" remained romantic and unproductive until the railroad came. . . . The railways helped to industrialize this region, pushing their way close to the edge and occasionally into the Chaco; steamers and sailing vessels crept farther into the interior on the larger rivers, bringing manufactured goods



THE BARK OF THE QUEBRACHO TREE.

(The workman always tries the tree, if it is to be used for its tanning extract, by testing the thickness of the bark and sap wood.)

from abroad in order to exchange them for cargoes of quebracho, until the mystery of the Chaco has faded away before the march of civilization, while logging camps and sawmills are as busy there as they are in Wisconsin or Canada.

The quebracho, like the mahogany, usually stands by itself or is found in groups of not more than four or five to the acre. It is two or three feet in diameter and "is crowned by a rather thin, oval, or V-shaped mass of branches and leaves." At ten years from planting the trees are big enough for posts; and the Argentine Republic has enacted laws for planting and for conserving the supply of the quebracho for future generations. The making of railroad sleepers has become an industry of huge proportions.

Some of the mills many miles distant from any main railway are equipped and organized in a manner which would reflect credit on any similar plant in the United States. . . . This mill business is carried on by many companies, although the tendency is to concentrate the management into fewer but larger organizations. One company owns a tract of land of about 4,000,000 acres and is prepared to cut timber, fashion it into logs and sleepers, prepare tanning extract, and utilize every other resource which the land provides. Another company can turn out 20,000 to 30,000 sleepers a week.

The rough, untrimmed logs from which only the bark has been removed are known as "rollizos" and are used for posts, beams, cabin pillars, or cart axles.

By far the most important product of the

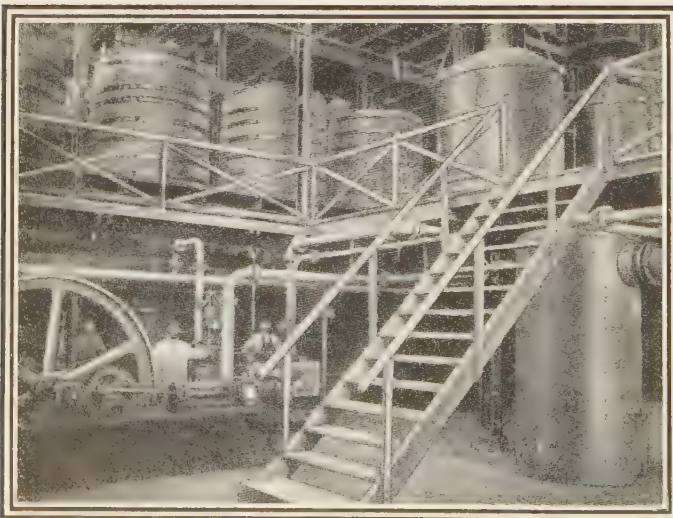
quebracho is the extract, which, as has been stated above, is used in tanning leather. From the *Bulletin* we gather the following interesting particulars concerning this industry:

All the timber companies are adjusting their plants so as to utilize the wood, either in its entire output or in that portion not reserved for posts and sleepers, for this extract. In Paraguay and areas in the Chaco remote from good roads every particle of the wood is turned into extract, because the demand is usually in advance of the supply, and it is, therefore, more profitable to manufacture the more concentrated article, which can be more easily and economically carried to market.

One feature of quebracho, in which it is superior to other sources of supply, is that the bark, the sapwood, and the whole of the central part of the tree produce the extract in considerable quantities. . . . Quebracho extract is easily manufactured when the machinery is once installed. All the wood is passed through a machine that cuts it into shavings or the smallest possible chips. It is then collected into immense kettles, in which it is treated by chemical processes until all the tannin is removed; after this the fluid preparation is reduced by evaporation to a thick, jelly-like mass, which is poured into sacks, where it is finally dried into substance sold in commerce.

The preparation of the extract is far less difficult than the gathering of the raw material. In Paraguay the trees are cut in the heart of the virgin forests and have to be hauled by ox-teams to the nearest clearing. As the cutting-stations are generally remote from any settlement, it has been found neces-

sary to employ native Indians for the work, "as they are thoroughly acclimated, understand the wilderness, and can withstand the plague of insects which make life at night miserable for the foreigner." Each factory runs a narrow-gauge railway from the factory to the points on which the newly felled trees are carted. The exportation of quebracho extract from the River Plate has increased from 400 tons in 1895 to about 30,000 tons in 1908. The United States takes about 65 per cent. of this total. In fact, quebracho is becoming one of the chief tanning extracts in use.



THE INTERIOR OF A QUEBRACHO EXTRACT FACTORY.

(Modern machinery of the best quality is used in these factories, even when they are located miles away from the centers of civilization.)

CLYDE FITCH: A SELF-DEFEATED PLAY-WRIGHT.

(WILLIAM) CLYDE FITCH, whose untimely death occurred so unexpectedly at Châlons-sur-Marne on September 4 last, was born in the city of New York, May 2, 1865. "In all apparent ways," writes Mr. Clayton Hamilton in the October *Bookman*, "his career was a success; he made more money and achieved a wider reputation than any other American playwright, past or present; his work was popular and well rewarded with critical esteem not only in his own country but in England, Germany and Italy as well; and yet, looked at largely, this same career appears to be a failure, because Fitch has left behind him no single drama that seems destined to endure. Criticism of his work is therefore confronted with a paradox. Why should a playwright who achieved so much have failed to achieve more? Why, in the face of such success, should we feel finally a sense of failure?"

Mr. Hamilton thinks the answer to the riddle is to be found in the fact that "Fitch was himself a paradox." The qualities of mind that enabled him to go so far were "the very qualities that prevented him from going farther." It was "not what he lacked, but what he had that defeated him." His very aptitudes held him back. In illustration of this self-defeating talent of Fitch's Mr. Hamilton reviews several of the characteristics of his work:

First of all, whatever opinion may be held concerning his importance as an author, there can be no denying that Fitch was a great stage-director. . . . Not till after the introduction of electric lighting and the evolution of the picture-frame proscenium did dramatists concern themselves with the preparation and arrangement of pictures on the stage which should convey at once to the audience, by visual means alone, the very sense of life. Fitch made his advent as a producer just at the moment when the theater, for the first time in its history, was fully equipped upon the mechanical side for holding the mirror up to nature; and of this condition he immediately took advantage. He had a genius for arranging mechanical effects; and many of the devices of stage-direction to which we have now grown thoroughly accustomed through their use in later plays are the result of his inventions. Usually his most clever innovations in stage-management were disclosed at the very outset of his plays. By this means he stimulated interest at once, and also avoided distracting the attention of the audience from the progress of the action after the plot was fairly started. Everybody remembers the funeral at the opening of "The

Climbers," the automobile in "The Way of the World," the department store in "Glad of It," and the ocean liner in "The Stubbornness of Geraldine." In thus making the theater visually representative of familiar facts of life Fitch performed a very great service.

Considered from the other point of view this very aptitude was "one of the qualities which contributed most toward Fitch's final failure to attain greatness as a dramatist." While taking great pains to render the external facts of life he cared too little about revealing its internal truths. Further:

He often allowed himself to be lured aside from the straight current of a dramatic story in order to accomplish minor effects by the way. The episode of the Cook's tourists in the Vatican, which forms the second act of "The Girl With the Green Eyes," is exceedingly amusing in itself; but it ought never to have been set between the solid first act and the tense and earnest third act of that serious, important play.

Fitch had a "very subtle sense of actors" and "a genius for casting his plays." He gave an excellent training to hundreds of actors and actresses who were quite unknown before "he discovered their special gifts and taught them to behave on the stage as people behave in ordinary life." To this is due the fact that "the American stage is now a far finer instrument of art than it ever could have grown to be, in the same period of time, without his influence."

But, on the other hand, he suffered the penalty of this ability. He was so skillful in devising parts which would exactly fit the capabilities of this or that popular performer that he was often led to make his plays mere vehicles instead of dramas. Of this defect "Her Great Match" and "The Straight Road" may be taken as examples.

Fitch was "an extraordinarily quick and accurate observer of the details of daily life. No little thing escaped his eye." His range, too, was "very broad." But, "like nearly all artists who cover a wide surface, Fitch was lacking in depth.

Mr. Hamilton is of opinion that one reason why Fitch's work was so popular was that "it was inspired by an unusually keen sense of entertainment."

He looked at life naturally in the comic spirit. He was always ready with a laugh. Even when he was most serious and thoughtful, and strove hardest to expose the shams and follies of society, he pleased his audience by maintaining the satiric mood. He was playfully earnest and

smilingly sincere. But for this talisman toward popularity he was forced again to pay a penalty. His sentiment and charm seldom deepened into pathos, and he was utterly incapable of looking at life in the tragic mood. He could see tragic matters only in the comic spirit.

Fitch's activity was phenomenal. In the nineteen years between the first performance of "Beau Brummel" and the playwright's death he "actually produced in the theater between forty and fifty plays"; and more than once he made four new productions in a single season. "There can be no doubt," says Mr. Hamilton, "that this excessive activity was the main reason for his failure to achieve a masterpiece." Fitch did not write

rapidly to make more money, nor to widen his fame. He loved writing; and he "stroved to do his work as well as he could possibly do it." He simply had to write and write. As late as May 5, 1909, he said of himself: "I can't make my mind keep still."

It appears that last spring Fitch completed a play called "The City," which he told his friends was the best he had ever written. It is hoped that this "is the great work for which we have been waiting." There would be "a dramatic fitness," Mr. Hamilton thinks, if the playwright's last work should "win for him the coveted crown." By his earnest striving he deserved to succeed.

IS THE THEATRICAL MANAGER KILLING THE DRAMA?

A PSEUDONYMIC writer contributes a paper to the *Annales* (Paris) in which he declares that the poverty of the modern drama is due more to the maleficence of the manager than to any other cause. According to this critic, the manager is the Shylock of the dramatic and theatrical world, and every evil that curses "the profession" needs not to be looked for in any other source than the manager's sanctum. Yet our writer admits that the modern manager is the result of the evolution of the theater, which has evolved just as journalism and commerce have evolved, and is as much the victim of the conditions that surround him as are the actor and the playwright. As these conditions prevail, says this writer, there is little hope that the drama of the future will attain to the best level held in the past, it being notorious that during the past twenty years mediocrity has been its characteristic note wherever drama has been acted. He proceeds, speaking from his knowledge of European theatrical conditions:

—Mr. Manager will insist, before producing it, on being handed a small present by the sanguine aspirant, and it generally happens that the number of representations of such a piece coincides with the amount of money paid over in the ratio of one-half,—that is to say, that the author of a *succès d'estime* is always out of pocket by at least half of the amount he presented to the manager.

The writer in the *Annales* declares that the passing of the old stock company means a bad time for the intellectual drama of the future. He says:

In the old stock companies the representation of any given play assured the author a reasonable return for his labor. There were no long runs, but there was a good all-round average. If there were no two-year runs, there were few failures. Also actors were content to remain with the same company. They did not, as they do now, put themselves up at auction. The result was consistency, harmony, and satisfaction to all concerned. One cannot fail to note one phenomenon resulting from this overwhelming selfishness of the manager, whose greed exceeds that of any known animal; people are rapidly losing all interest in really intellectual dramas and are cultivating a taste for the vaudeville and the music-hall. The only hopeful sign in the modern management of the theater is that the competition among dramatic authors is so keen that a higher quality of humor and comedy is slowly becoming apparent. There would also seem to be a strong reaction on the part of educated people against the poor stuff thrown at them across the boards, so that the uneducated may be dazzled by sensation and elaborate staging, all of which signifies nothing in point of instructiveness. And as the thinking portion of human society makes the theater a profitable possibility, it seems likely that the manager may mend his methods when his best clients begin to fall off.

Your modern manager cares little for the really and truly artistic in modern representations. He is all the time out for profit. In order to assure the maximum of box-office returns he conspires with the outside speculator, makes treaties with well-recommended authors whose ability is often the least quality that wins managerial notice, and follows the nod of fashion which looks for a certain kind of plays to whet peculiar appetites before the after-play supper. If a play, coming from an unknown author, should happen to appeal to the managerial discrimination,—if, first, by the remotest chance in the world, it should happen to be read,

IS MEXICO A LAND OF DESPOTISM AND SLAVERY?

AN article from which we quoted in the October REVIEW depicted the Republic of Mexico as a monument of the successful administration of President Diaz and indicated the evidences of progress and prosperity which are to be met with throughout the country. And in the June number of the REVIEW Mr. Charles F. Speare, in his paper on the finances of Mexico, said: "When one considers the proportion of peons or Indians to the entire population one wonders how Mexico can develop as she does. . . . From chronic and hopeless indebtedness . . . her credit to-day is the best of any of the southern republics. . . . Her annual surplus has the respect of the money markets. When she wants to borrow she does so on good terms." An impartial critic would admit that there must be some substantial ground for statements such as these, but if a writer in the *American Magazine* is to be credited the conclusion is an erroneous one. In the current number of that periodical appears the first of a series of articles by Mr. John Kenneth Turner on "Barbarous Mexico." An editorial introduction informs us that the "Republic" of Mexico is "a pretense and a sham"; that its government is "more absolute and autocratic than Russia"; that "it has its Siberias,—in the hot lands of the south; its spy system, its condemnations for political offenses, and its terrible prisons"; that it is "inhabited by fifteen millions of unhappy people" for the uplifting of whom "nothing has been done." Mr. Turner's first article is upon "The Slaves of Yucatan." He says that most Americans term Mexico as "our sister republic" and picture her vaguely as "a free people in the sense that we are free." Others regard it as a country where "a great and good man orders all things well for his foolish but adoring people." This is what Mr. Turner says he really found:

The real Mexico I found to be a country with a written constitution and written laws as fair and democratic as our own, but with neither constitution nor laws in operation. Mexico is a country without political freedom, without freedom of speech, without a free press, without a free ballot, without a jury system, without political parties, without any of our cherished guarantees of life, liberty, and the pursuit of happiness. It is a land . . . where the executive rules all things by means of a standing army, where political offices are sold for a fixed price, where the public school system in

vast country districts is abolished because a governor needs the money. I found Mexico to be a land where the people are poor, because they have no rights, where peonage is the rule for the great mass, and where actual chattel slavery obtains for hundreds of thousands. Finally, I found that the people do not idolize their president, that the tide of opposition, dammed and held back as it has been by army and secret police, is rising to a height where it must shortly overflow the dam. Mexicans of all classes and affiliations agree that their country is hurrying toward a general revolution in favor of democracy,—if not a revolution in the time of Diaz, for Diaz is old and is expected soon to pass, then a revolution after Diaz.

Mr. Turner obtained his first hints as to slavery in Mexico from four Mexican revolutionists at Los Angeles in 1908, who told him that in Mexico men, women, and children "were bought and sold just like mules"; and that "just like mules they belonged to their masters." And Mr. Turner claims he first found American slavery in Yucatan, "the peninsula which is an elbow of Central America." The soil of Yucatan is specially adapted to the production of henequen or sisal hemp. The gigantic green plants extend for miles.

The farms are so large that each has a little city of its own, inhabited by from 500 to 2500 people, according to the size of the farm. The owners of these great farms are the chief slaveholders of Yucatan; the inhabitants of the little cities are the slaves. The annual export of henequen from Yucatan is said to be about 250,000,000 pounds. The population of Yucatan is 300,000. The slave-holders' club numbers 250 members, but the vast majority of the lands and the slaves are concentrated in the hands of fifty henequen kings. The slaves number probably more than 100,000.

The planters do not call their chattels "slaves." "They call them 'people' or 'laborers,'" and ostensibly they are working off indebtedness to their masters. As the president of the Yucatan Chamber of Agriculture put it:

We do not consider that we own our laborers; we consider that they are in debt to us. And we do not consider that we buy and sell them; we consider that we transfer the debt, and the man goes with the debt.

Mr. Turner says that he entered Yucatan in the rôle of an American investor seeking a plantation, and that he was asked 400 Mexican dollars apiece for men by the planters with whom he treated. A year previous the price had been \$1000 each man. When a

slave is sold the transfer is a very simple matter:

"You get the photograph and identification papers with the man," said one, "and that's all." "You get the identification papers and the account of the debt," said another. "We don't keep much account of the debt," said a third, "because it does not matter after you've got possession of the man." "The man and the identification papers are enough," said another; "if your man runs away, the papers are all the authorities require for you to get him back again." "Whatever the debt, it takes the market price to get him free again," a fifth told me.

The recruiting of the supply of slaves is not at all difficult.

"It is very easy," one planter told me. "All that is necessary is that you get some free laborer in debt to you and then you have him. Yes, we are always getting new laborers in that way."

The amount of the debt does not matter, so long as it is a debt.

The slaves of Yucatan, Mr. Turner says, "get no money. They are half starved. They are worked almost to death. They are beaten. A large percentage of them are locked up every night in a house resembling a jail,"—to prevent their running off.

Much of Mr. Turner's statements as to beatings is founded on hearsay; but he claims to have witnessed some punishments:

One of the first sights that we saw on a henequen plantation was the beating of a slave,—a formal beating before the assembled toilers of the ranch early in the morning just after the daily roll-call. The slave was taken on the back of a huge Chinaman and given fifteen lashes across the bare back with a heavy wet rope, lashes so lustily delivered that the blood ran down the victim's body. This method of beating is an ancient one in Yucatan and is the customary one on all the plantations for boys and all except the heaviest men. Women are required to kneel to be beaten, as sometimes are men of great weight. Men and women are beaten in the fields as well as at the morning roll-call. Each foreman, or *capataz*, carries a heavy cane with which he punches and prods and whacks the slaves at will. I do not remember visiting a single field in which I did not see some of this punching and prodding and whacking going on.

The slaves rise from their beds at 3.45 in the morning; their work in the fields "ends when it is too dark to see any more." When any are sick they are allowed to work as "half timers."

The Mexican Liberals say: "Siberia is hell frozen over; Yucatan is hell aflame."

THE GERM OF LAZINESS: THE "HOOKWORM" DISEASE.

IN December, 1902, and for some time thereafter, the American press made much of what it conceived to be an exceptionally good joke. At the Pan-American Sanitary Congress held in that month it had been announced by no less an authority than the Chief of the Division of Zoölogy of the United States Public Health and Marine Hospital Service, Dr. Charles Wardell Stiles, that he had discovered a human parasite to which were directly due the "laziness" and "shiftlessness" of the poor whites of the sand-lands and pine-barrens of the South. The "lazy bug," the "lazy germ" became a joke at which people laughed whenever the subject was broached, until Dr. Stiles, who "had seen emaciated men trying to wrest a living from half-tilled fields, and women, to whom rest never came, trying to nurse starveling babes at withered breasts, solemnly asserted in an address: 'It isn't a thing to laugh at when men and women and children are dying.'" The story

of Dr. Stiles' momentous discovery is forcefully told by Marion Hamilton Carter in *McClure's* for October; and it shows that, far from being a laughing matter, Dr. Stiles' announcement was founded on facts, and those of the gravest import to at least two million people of the South. The discovery of the hookworm itself is not recent.

In 1782 Goeze, a German clergyman and zoölogist, found a small hair-like parasite in the intestine of a badger he was dissecting, which he called *der Harrundwurm* (the hair-round worm). . . . Seven years later Froelich, another German zoölogist, found a similar parasite in the intestine of a fox. Observing the "hooks" spoken of by Goeze, Froelich adopted the vernacular word *Haakenwurm* (hookworm) and gave the generic name *Uncinaria* (from *Uncinus*, a hook) to the genus he established. Thus the parasite got its name. As a matter of fact the "hooks" are not hooks at all. . . . However, the name clung for two other reasons: The head of the worm bends conspicuously backward, making a hook of the worm itself; and within the mouth cavity of the European species lie four sharp, chitinous

hooks by which the parasite fastens itself to the intestine. . . . In 1843 Dubini, an Italian of Milan, described a species occurring in man, to which was attributed the widespread anemia among Italian brickmakers, excavators, and the poorer rural population. . . . In 1879 a terrible epidemic of "tunnel disease" broke out among the workers in the St. Gothard tunnel and the interest of the whole scientific world was aroused. Investigation left no doubt as to the cause of the disease, and that it had been spread through total neglect of personal hygiene on the part of the workers and lack of sanitary conveniences. The soil of the tunnel was completely impregnated with the ova and larvæ of the hookworm, and all who handled it became infected. In 1881 Bozzolo, in Turin, suggested the use of thymol, the active principle of thyme, for the destruction of the parasite, which remains the stock treatment to-day.

The disease became prevalent in Europe, and reports of it also came rapidly in from such widely scattered places as Calcutta, Tunis, Cape Colony, and Egypt. The worm had not, however, been found in America; but in 1893 Blickhahn "won the priority claim for first discovery by publishing in the *Philadelphia News* the report of an imported case of a German bricklayer he had treated." On the heels of this a few cases were reported from Richmond and New Orleans, and the profession knew that the hookworm was here. But no one knew that America had a hookworm of her own until 1901, when "the right case fell into the hands of the right man,—Dr. Allen J. Smith, of Texas,—and the account of it was published by Dr. Charlotte M. Schaeffer in the *Texas Medical News*." Dr. Smith found that his hookworm was "not Dubini's, but a new American species never before described." Dr. Stiles had asked for specimens of the worms from Dr. Smith's case and, when he received them, "went off on a vacation to work out the question of species." Later, while Dr. Smith was writing a paper on his hookworm, "the mail one day brought him a little two-page pamphlet, dated May, 1902, signed 'Stiles,' announcing the new American hookworm. Dr. Stiles had won the priority claim for the discovery. It was one of the closest runs for priority on big game in the history of zoölogy."

In describing how the hookworm feeds upon its victim, the *McClure's* writer says:

The hookworm's motto might well be *Multum in parvo*; for, compacted within its tiny body, less than an inch long and looking like a bit of soiled coarse thread, are mouth, esophagus, intestinal canal, etc., to which the female adds the capacity for many thousand eggs. . . . When the hookworm is ready to eat it presses its mouth disk against the intestine,

draws a tiny piece of the mucous membrane into its mouth, and punctures it with its lancets and fang. Through the minute holes thus made the blood is sucked out.

How long a hookworm remains clinging to one spot before it moves to a fresh one is not known. . . . Dr. Sandwith, an English physician, found in one of his autopsies 250 worms and 575 bites. In another, when the autopsy was performed seven hours after death, there were 863 worms, of which 217 were still clinging, and some of them had not only their heads but half their bodies buried in the intestine.

Any one who has lived in the South knows the "sandhillers," "barrenites," and "crackers," a miserable class of people springing from Anglo-Saxon stock but having a deep-seated aversion to work. Some are bloated with dropsy, have lusterless eyes, and a skin like tallow. Some are "dirt-eaters,"—they eat dirt and clay right off the ground; or they will pick lumps of soot out of the chimney and suck it till they swallow it. All of these are the unfortunate victims of the *Necator Americanus*, the "American murderer," as Dr. Stiles now calls his lookworm. The affections known as "ground itch," "foot itch," "dew poison," etc., have also been traced to the same source. For it is found that in most cases infection takes place through the skin of the foot. Herein lies the one hopeful feature of hookworm disease: the parasite cannot multiply in the body of its victim.

The female lays her thousands of eggs in the intestinal tract of her victim, but they cannot develop without oxygen. When they have passed out, and conditions of air and temperature are favorable, it takes them from one to three days to hatch into minute larvæ, barely visible to the naked eye. . . . After a short period of growth a new skin is formed under the old one and each larva molts. It becomes longer and thinner, and presently the second molt begins. . . . It is now in the infective stage, and unless it can fasten on a passing foot, or a stroke of luck sends it down its future victim's throat in drinking water or on the surface of unwashed vegetables, its career as a parasite is nipped in the bud.

At this stage freezing and complete drying are fatal, so the parasite hastens to protect itself.

It wastes no time, but crawls off to the nearest puddle or into damp soil, where it can protect its feeble body from the drying action of sun and wind. In this way,—burrowing through loose, sandy soil, gathering about the roots of plants and vegetables,—the larvæ hatched from a single deposit spread themselves over an area probably a hundred times greater than the spot whence they originated. And there are tens of thousands of them, all bent on the same errand, all ravenous for contact with human flesh.

It will have been gathered from what has been said that the spread of the hookworm disease is due to soil pollution. In a census of 366 sand-land farms, taken by Dr. Stiles, 43 per cent. of the whites and 79 per cent. of the negroes were without any kind of sanitary convenience. It is found that, "without so much as guessing that there is anything the matter with him, the negro is able to carry about with him a number of hookworms that would lay a white man in his bed and a white child in his grave." And it has been fairly assumed that "in the beginning the negroes brought the hookworm with them from Africa on the slave-ships, and it has remained with them ever since." This is the "price of slavery" that has fallen

on the white man and his children; for wherever the whites have followed the negro on plantations that he tilled in slave days anemia with symptoms of the hookworm disease has broken out among them, and it now numbers two million cases in the South. By it thousands of American families have been reduced to abject poverty and millions of dollars have been lost through incompetent labor in every State below the Potomac.

It is the ignorance and carelessness of the white landlord that are responsible for the present insanitary conditions; and five great States in the South are now confronted with the grim fact that "their labor problem is the problem of soil pollution and the hookworm disease."

THE TARIFF MAKE-BELIEVE.

PRESIDENT WOODROW WILSON, of Princeton, contributes to the October *North American Review* a trenchant criticism of the results of Messrs. Payne and Aldrich's attempts at tariff-making. He begins by saying that "the wrong settlement of a great public question is no settlement at all." Therefore, the new tariff law, which is "miscellaneously wrong in detail and radically wrong in principle, which disturbs more than it settles, and by its very failure to settle forces the tariff question into a new and much more acute stage, but which its authors would fain regard as a settlement of the tariff question," is no settlement at all. Men of their mind and with their attitude toward the interests of the country "never can settle it"; for they "do not know the way and cannot find it." New men and new principles of action "must therefore be found." The country "must now go to the bottom of the matter and obtain what it wants."

In the first place, it is the general opinion throughout the country that this particular revision was chiefly pretense, and that it is the first time that we have had tariff legislation of this kind. The McKinley tariff bill and the Dingley tariff bill, whatever may be thought of their wisdom or of their validity, as acts of statesmanship, were unquestionably frank and genuine. There was no concealment or make-believe about their purpose or their character. . . . Private favors will inevitably creep in. But no one was deceived. The men who put those measures through had no doubt that they had the support of the country in doing so. They gave the country what they thought opinion would sustain, gave it what they honestly supposed that it wanted. But no one who is

capable of assessing opinion now can possibly claim that that is what the men who were behind the Payne-Aldrich legislation did. They knew they were not giving the country what it wanted.

The methods by which tariff bills are constructed need revision. Nowadays debate in the Houses has nothing to do with it. What takes place in the committees is confidential. It is considered "impertinent for reporters to inquire." This policy of silence and secrecy is "absolutely inconsistent with every standard of public duty and political integrity." If the newspapers published even the debates, and the public read them, the entire country would presently realize how flagrant the whole make-believe is. President Wilson calls attention to "one extraordinary circumstance of the debates in the Senate":

The Republican party platform had promised that the tariff rates should be revised and that the standard of revision should be the differences between the cost of producing the various articles affected in this country and in the countries with which our country competes. One of our chief industrial competitors is now Germany . . . and the Department of State had . . . requested the German Government to furnish it with as full information as possible about the rates of wages paid in the leading industries in that country. . . . The German Government, of course, complied . . . transmitting an interesting report. . . . The Department of State placed it at the disposal of the Finance Committee of the Senate. But Senators tried in vain to ascertain what it contained. Mr. Aldrich spoke of it contemptuously as "anonymous," which, of course, it was not; as "unofficial," and even as an impertinent attempt on

the part of the German Government to influence our tariff legislation. It was only too plain that the contents of the report made the members of the controlling faction of the Finance Committee very uncomfortable indeed. It undoubtedly showed . . . that the wages paid to skilled laborers in Germany are practically as great as those paid in the United States. . . . To have made it public would have been to upset half the arguments for the rates proposed with which the committee had been misinforming the country. . . . It would have proved that the leaders of the party were deliberately breaking its promise to the country. It was therefore thrown into a pigeonhole and disregarded. It was a private document.

Referring to the great power of the Speaker of the House, and asserting that "it is common knowledge what Mr. Cannon and Mr. Aldrich would prefer to have the House do when any question of this sort is under consideration, President Wilson reminds his readers of the fact that "these men represent forces; they do not constitute them. The forces that control the Republican party lie outside of them. They are only the spokesmen of those forces." Why do the rank and file of the Republican members still, in this day of change, find themselves unable to make an independent choice in a matter like this? . . . Why, then, are they impotent?" The answer is:

"The Republican party is old at the business of tariff-making and has established a business constituency. Its leaders feel that they must satisfy that constituency." . . .

After some observations on protection and the rise of the trusts, it is pointed out that the latter "do not need the assistance or the 'protection' of the Government." They have "invaded foreign markets, and sell to

all the world where there is no government to assist them." Now "no political party can afford to be their partners in business." President Wilson believes that it can be shown that high protection created the trusts and combinations of our time, though he is willing to admit that they might, and probably would, have arisen in any case. The fact that has been disclosed to us in these latter days is this:

We have witnessed the partial creation . . . on the one hand, of a comparatively small privileged class or body of men, the men who control capital and the uses to which it is put, and who have, as the representatives of the business of the country, the ear of Congressional committees; and we begin to see, under them, associated with them, on the other hand, a vast unprivileged class or body which forces its way to a share in the benefits of our apparently prosperous conditions only by threats and strikes, and is steadily deprived of a large percentage of what it thus gains by rapidly rising prices which day by day increase the cost of living amongst us. What, then, shall we do? Shall we adopt Thorough as our motto and sweep the whole system away? By no means. The system cannot be suddenly destroyed. . . . It must in some conservative way be altered from decade to decade, if possible from year to year, until we shall have put all customs legislation upon a safe and permanent footing.

There is "no real difficulty about finding how and where to lay such taxes, when once a just principle has been agreed upon, if statesmen have the desire to find it. The only trouble," says President Wilson, "is to ascertain the facts in a very complex economic system. Honest inquiry will soon find them out, and honest men will readily enough act upon them, if they be not only honest but also courageous, true lovers of justice and of their country."

AMERICAN SHIPS AND THE WAY TO GET THEM.

IN the *Atlantic Monthly* for July "A British Marine Officer," writing under the heading "Wanted: An American Merchant Marine," narrated the following as an actual experience:

Four months ago, while passing along the Liverpool docks on an electric train, I saw the Stars and Stripes flying at the peak of a sailing ship. This so tickled me that I broke my journey and walked back half a mile to get a closer look at the curiosity. Arriving at the dock I found the ship to be the *Homeward Bound*, of San Francisco. On questioning the dockmaster as to the number of American ships he had berthed he replied: "This is the first American

ship I have berthed in my twelve years' experience on the docks."

This writer held that the American merchant marine had "ceased to exist."

In the October number of the same magazine is published a reply to the British officer, by Mr. Winthrop L. Marvin, which, an editorial note says, "represents so ably the views of those who believe in the stimulus of ship subsidies as an essential remedy that it is printed without regard to views upon tariff reform which have been repeatedly expressed in the columns of the *Atlantic*."

Mr. Marvin, while admitting that "it is good sometimes to see ourselves as others see us," and that "the sharp words of the friendly British officer are certain to intensify the determination so manifestly rising in our country to recreate an American merchant marine worthy of the present wealth and strength and the glorious traditions of the Republic," points out that the author of "this really notable article" falls into error in suggesting that a "free-ship" policy,—a wholesale purchase of American ships from British builders,—would have averted the loss of our ocean-carrying. The decline of the ocean trade of the American merchant marine is due, he says, to "a situation which could have been only partially and slightly modified by 'free ships.'"

This loss of our shipping is due to, and yet could have been prevented by, the modern Republican system of protection. When, in 1861 and the years afterward, the statesmen of the new Republican party, not merely to meet the exigencies of the Civil War, but with deliberate, far-seeing purpose, set themselves to force the development, through national aid of great national industries, they left out of the protective system what for three-quarters of a century had been one of the greatest of those industries, undeniably the most successful, and in the manner of its growth the most distinctly and characteristically American.

The fact is generally forgotten that in 1789 our merchant marine was almost as shrunken as it is now, "a mere skeleton of 123,000 tons," and that then, as now, our commerce was carried by British shipping. But our statesmen, in their very first tariff act of that year, "embodied stalwart protection for American ships and sailors through the form of discriminating tonnage and customs taxes, which compelled American merchants to employ the ocean-carriers of their own country,—and the law required that these ocean-carriers should be built in the United States." This measure was eminently successful. By 1800 our merchant fleet had expanded to "a tonnage of 667,000, carrying 89 per cent. of our imports and exports," and ten years later to "981,000 tons, carrying 91 per cent." These policies of ship protection "were not entirely withdrawn against Great Britain, our chief competitor, until 1849; and by that time they were reinforced by a generous system of mail subsidies which gave to our ocean steam fleet a growth in quantity and quality far superior to that of the United Kingdom." Our merchant marine reached its zenith in 1855, with 583,000 tons of shipping launched that year

in the United States; and this was the direct result of the protection initiated in 1789.

In 1860 our shipbuilding dropped to 214,000 tons, one cause of the shrinkage being the withdrawal of the ocean-mail subsidies, "in retaliation on the part of the leaders of the South against the abolition ports of the North."

Not all the pluck and resource of Vanderbilt and Collins, the ablest ship-managers of their time, could sustain the American steam lines, unsubsidized, against the treasuries of Europe; and all but a few of the splendid Yankee steamships had vanished with the clipper ships from the great trade route of the North Atlantic when the first shots of the war were fired at Sumter. The Civil War did not begin the destruction of our shipping, as is often but inexactly stated; the destruction had begun before. American ships, without their mail pay, though larger and faster ships, could not compete with the British Cunard line and its subsidy of \$900,000 a year.

Mr. Marvin claims that "it is the Solid South, aided by a portion of the Middle West, that is directly responsible for the failure of the American Government to take some step to include the merchant marine within the fortunate circle of protected industries." But the opposition of "nearly all of the Southern Democrats and a faction of Middle Western Republicans" is becoming weaker year after year. The propaganda for the American ship, which has been successfully carried on by the Merchant Marine League of the United States, is combated "in most of the Western States by the resident agents of the European steamship combinations, which derive an income of about \$200,000,000 a year from their control of our ocean-carrying." This is a prize which Europe will not relinquish without a mighty battle.

Replying to the question, "Has not the shipbuilder been protected by our exclusive navigation laws?" Mr. Marvin admits that he has been, but that "the prohibitory protection of the shipbuilder is of no avail because the use of the ship itself is not protected."

On the general desirability of subsidies for ships Mr. Marvin cites the experiences of other nations,—Germany, France, Sweden, Austria, Japan, and pre-eminently Great Britain,—each of which is reaping the benefits of such a system. China and the United States are "the only important governments which have held aloof from the modern policy of direct and liberal national aid to the merchant marine."

Mr. Marvin corrects the impression of

the British marine officer that, "with the exception of Cramps', America has hardly a private shipbuilding yard of any consequence." At Boston, Bath (Me.), Sparrows Point near Baltimore, Newport News, Seattle, and San Francisco are yards "fit, of

course, to undertake any class of construction." To throw away these mighty shipyards would be "an unconscionable folly." The development of an American merchant marine and of American ocean shipbuilding "must proceed together."

THE FOURTH PARTITION OF POLAND.

THE prospective absorption of two of Russian Poland's important districts by incorporating them with one of the provinces of the Russian Empire proper,—this it is that moves "Spectator" to contribute an article to the Viennese *Oesterreichische Rundschau* under the above title. If "Spectator's" title might by some be called inexact, it is yet terribly significant, for as he sums up the various considerations of the case in one sentence:

The Poles are in two populous and important districts, losing all their former educational, legal, and economic rights, the Polish language being proscribed and excluded from these departments of their life; in fact, not since 1795 have the Poles been visited by a more disastrous national calamity.

We would here remind our readers that there have been three actual "partitions" of Poland in the years 1772, 1793, and 1795 for the benefit of Prussia, Austria, and Russia,—Austria not being concerned in the second partition, with Russia remaining possessor of the lion's share after the third.

The proposals now before the Duma, defining and regulating the status of the territory to be subtracted from Poland and added to Russia, are quite sure to be accepted by that pliable body, thinks "Spectator," who therein agrees with a large section of the Polish press. The plan is to take the two Polish districts of Lublin and Siedlce and to unite them into one new district under the name of Kholm, which, in turn, is to be placed under the jurisdiction of the governor of the province of Kiev. To Kiev itself at the present time already belong Podolia and Volhynia; when the projected arrangement is enforced that province will include the districts of Kiev, Podolia, Volhynia, and Kholm. And thus the area of Russia proper will be increased by Russian Poland's second and third largest political divisions, which, combined, cover 12,000

square miles (the size of Maryland and Delaware together) and contain over 3,000,000 inhabitants. As to Russia's general attitude, past, present, and future, toward its Polish population, nothing could be more succinctly sinister than this paragraph in the *Oesterreichische Rundschau*:

Neither the smooth words which the Poles from time to time receive in the Duma from interested persons nor the handsome phrases regarding Slav solidarity which in recent times have slipped so glibly from the tongue at pan-Slavist congresses have in the least altered the fact that the policy of the Russian Government toward Russian Poland is one of permanent repression. The bill relating to the new Russian administrative district of Kholm, which is now to be created, means a climax in a policy aiming at the destruction of Polish nationality.

How fatal this policy to the survival of anything Polish may easily be seen from some of the proposed regulations for Kholm. In the first place, a number of exceptional rules affecting Poland are to be abolished in Kholm. In the municipal schools the teaching of the Polish and Lithuanian languages will cease, likewise the privilege of private schools to teach certain subjects in Polish or Lithuanian; in the popular schools all instruction must be given in the Russian tongue. Roman Catholic holidays are no longer to be officially observed. Poles will be allowed to purchase or lease real estate only from persons of their own nationality; but Poles who sell their land to orthodox Russians are to be relieved of certain fiscal contributions. Polish and Lithuanian are to be banished from the law courts, and all legal proceedings must be carried on in Russian, all legal documents written in Russian, whether the parties there-to understand Russian or not. In short, the 3,000,000 Polish people of Lublin and Siedlce will to all intents and purposes, as residents of Kholm, become absorbed into and form an integral part of the imperial province of Kiev.

FINANCE AND BUSINESS.

NOTES ON APPLIED ECONOMICS OF THE MONTH.

CHILDREN, SAVINGS, AND HOMES.

MOST of the boys and girls in East Rutherford, N. J., belong to the "juvenile branch" of the local building and loan association. This branch is managed by a committee of women with such success that the amount saved by the children has grown, during the last few years, from \$2000 to \$20,000.

If you stop off at East Rutherford you find the children there looking as happy as they need to be, not suffering from deprivation of necessities; and, on the other hand, the association has \$20,000 to help laboring men, young married folks, and others whose financial resources have not yet caught up with their love of home to own their own houses and lots.

What such building and loan associations have done for home owners is best seen in Philadelphia. Here was founded the first "local" society in the United States. By 1890 60 per cent. of Philadelphia families owned their own dwellings; and practically all the smaller ones had been bought through building and loan societies. Cincinnati and St. Louis are the next strongest examples of such homes and such associations.

The comparatively surprising amount of the New Jersey children's savings has been a matter of comment in other States. New York passed a law making it easy for building and loan associations to help minors to save. Another law followed last winter, allowing public school superintendents or principals to collect money from pupils and to deposit it in such associations. Juvenile branches in Corning and Elmira, N. Y., are prospering, as they are also in several associations in Ohio.

It would seem difficult to find a field of practical philanthropy more blessed than this, both to those who give and to those who receive. If the upbuilding of a community's homes is desirable, how much more so is an education in saving, in "doing without," applied to the scholars early enough in their lives to give reasonable hope that it will result in a habit?

Of course, the associations referred to are the "local" and "mutual" kind,—not any-

body's money-making scheme. Readers who would like to apply the principles to their own communities can learn details from the ladies in East Rutherford, or from Mr. A. W. McEwan, secretary of the New York State League of Co-operative Savings and Loan Associations, 20 Vesey Street, New York City.

STOCKS AND THE PLAIN PEOPLE.

NEVER in the history of the country have so many non-financial folks been asking the question: Will the stock market go higher?

For instance, hundreds of readers of this single magazine have written of their holdings of large and small lots of stock, or of bonds from one to ten of a kind, bought a year or two ago. Then this magazine was calling attention to the fact that average earnings entitled standard stocks to higher prices than were being asked.

What a big movement these readers shared in can be figured from the increase of stockholders in representative corporations in the year following 1907. Twenty-five railroads reported 252,083 stockholders on June 1, 1908,—41,014 more than the year previous. Forty manufacturing and other companies reported 322,277 in 1908,—an increase of 25,985.

There were 100,000 new shareholders after the 1907 panic to be added to the former 250,000 of the sixteen leading railroads and other companies alone.

Now many of these people, perhaps the majority, want to handle their money scientifically. They have been noticing the rise in the market for stocks and bonds. They have heard that 65 per cent. was added to the average price of representative railroad stocks during the twenty months ended August 14. Such a rise is unprecedented.

People know it is a good, general, sensible rule, after any prolonged upward swing in common stocks, to exchange them for something more fixed, like a real-estate mortgage, or a steady bond, or a deposit in a good bank. Even if everything goes higher, they reason, still they can look back at the 30 or 40 or 50 per cent. made on their money by the ex-

change as enough of a good thing; and they look forward to an opportunity of doing it again some time. The stock market has always moved by swings. It may be expected to keep on doing so.

That many such exchanges are actually being made appears from the reticence of large corporations to give the number of their 1909 stockholders. The inference is that there are less this year than there were last year.

WHAT THE STOCK MARKET CANNOT DO.

WHEN folks are figuring on the purchase and sale of stocks they don't often enough stop to think what stock prices are,—and, above all, what they are not.

"To-Day's Market," as reported on the newspaper's financial page, might just as well be called "To-Day's Guess." The price of the typical common stock to-day is supposed to be an estimate of the earnings of the corporation in question for the next year. Not present conditions but "futures" make the price of that stock.

Prophecy is peculiarly dangerous in this field. Reports and accounts can be calculated and averaged for years past, and conclusions drawn, but no earthly means has yet been found to calculate the one factor most important to the stock market,—next year's crops.

Last month, for instance, it was announced by the Government that the condition of cotton was only about 58 per cent.,—less than any year since 1902. This plant is the greatest single influence on foreign exchange,—the relation of our credit to the credit of other countries. It is one of the heaviest freight items on certain Southern railroads. For instance, it supplies 10 per cent. of the total tonnage of the St. Louis Southwestern Railroad. Last year, who knew anything about the cotton crop?

Then there is the large "accident." The San Francisco earthquake was one, the Boer War was another, the insurance scandals formed a third. Every so often comes a catastrophe, perhaps beneficial to humanity in the event, but nevertheless entirely upsetting to the stock market plans and ideas of the strongest and wisest.

Last month the known factors averaged very favorable. Any one studying the groups of figures furnished by one of the statistical agencies,—figures of money, of labor, of trade and enterprise,—could easily deduce that manufacturing and mercantile conditions

were above normal and getting better, that banking and monetary conditions did not point to any continued tightness of money, and that investment conditions were not as inflated as they have been before. In a country whose history is as much *before it* as America's it can be expected that industry will improve for a couple of years until it breaks previous records and that the stock market will discount this fact and pass its own high point of 1906.

But remember that stock prices are "futures" and that the profoundest calculator of this equation is but a school child before the unknown x and y ,—crops and accidents.

THE BIGGEST INVESTMENT OF ALL.

AMONG the eight thousand and more corporations whose affairs are interesting enough to the public to be treated in the "Moody Manual," the investor looks in vain for stocks and bonds that are backed by agriculture,—the greatest industry of all.

American farmers this year are taking in some \$8,750,000,000,—some 16 per cent. on their capital. For example, the *Argus-Leader*, that lively newspaper out in Sioux Falls, points with pride to the \$200,000,000 new wealth produced by South Dakota alone this year. "Analysis of the figures shows that the farmers are getting most of it. A hog to-day brings as good a price as a steer a number of years ago. Corn and wheat and oats and barley are selling at the top price. Hence, the *Argus-Leader* cannot be enlisted in pity for the poor farmer. He does not need it."

Now suppose one wishes to invest with these most prosperous business men and has already one-third or so of his capital in farm mortgages, or something similar, and wishes to enjoy for the other two-thirds the advantages that a responsible corporation gives.

One can purchase stocks and bonds of companies that buy farm products, such as American Beet Sugar, Corn Products, American Woolen, and American Cotton Oil, or others that the farmer buys from, such as the International Harvester Company and fertilizer manufacturers like the American Agricultural Chemical Company and the Virginia-Carolina Chemical Company.

But when it comes to putting \$100 or \$1000, or multiples thereof, into widely known corporations that are based on agriculture directly and primarily, one must turn to the irrigation companies, become so numerous and active during the last fifteen years.

IRRIGATION.

TRAVELING west of the Missouri, the Easterner wonders why so many of the men he meets seem "land crazy" until he realizes what irrigation means and the difference between an irrigated farm and any other kind of farm.

Take the unirrigated sugar beet crop in Colorado last year. There was too much sun and not enough rain. The crop was short. This year there were floods, and the crop was short again.

Now on irrigated land crop failures are unknown. This is a broad statement, to be qualified only by somebody's rank incompetence.

With a supply of sunshine that is almost equable and a supply of water which can be controlled absolutely, the farmer is no longer the plaything of the elements. He can manufacture crops about as scientifically as a mill turns out cotton cloths.

Hence, one finds 60,000 people added to the population of Idaho through irrigation companies working under the "Carey act." The Twin Falls country, in the southern part of the State, contains the largest private irrigation enterprises in the world. In Montana more than a million acres are now under irrigation. In Utah the watering of about 700,000 acres is under way. In Colorado the work has received a strong impetus from the opening of the Gunnison Tunnel by President Taft on September 23. On this water-distributing system alone the Government is spending some \$5,000,000. The lands affected will support about 25,000 citizens. As far off as California a couple of hundred thousand acres are being reclaimed,—in this case by private interests, instead of by the Government.

"REAL" IRRIGATION BONDS.

JUST because water on Western land works miracles, a few ingenious promoters are trying to make it work fables. They are beginning to trade on the growing popularity of the irrigation bond by offering queer kinds of stock or contracts, or what-not, against propositions inactive outside of their own imaginations.

Now some \$200,000,000 of private capital has been put into irrigation projects under proper safeguards. It has been raised largely in Pennsylvania and the Middle West. More lately, the typical "Eastern" banker has awakened to the fact that the real irrigation

bond is the real thing. Nor is it difficult to tell it when you see it.

The "real" bonds are of five varieties. First there is the "district" irrigation bond, payable through taxes collected by the county treasurer just the same as any other municipal obligation.

Second is the straight water company bond. The dam, canals, franchises, etc., form the security here.

In a third class the corporations are also private, but own not only the water but also the land which the water irrigates. The land, while covered by the original mortgage, may be bought out by a sinking fund or other provision.

Fourth come bonds issued under the Federal "Carey act." These must be secured by mortgages on the system of irrigation, and also by the lien given by the State to the company operating that system.

A fifth group of "Carey act" companies deposit, in addition to the above, certain of the actual contracts or notes made by settlers to the company in payment of land and water rights. The example which follows belongs to this class.

A TYPICAL IRRIGATION PROPOSITION.

THE test of a good irrigation bond is simple. In fact, it revolves around one word,—*water*. A typical irrigation project of the "Carey act" type, now in the going stage, will furnish illustration of the half-dozen points on which every investor should get satisfaction.

In the first place, the backers of the proposition understand *water*. They are mostly sheep ranchers of substance and prominence in Wyoming who have been watering land of their own for years. The human equation here as in all investments carries more meaning than columns of statistics. In this case railroad officials can be written to who will send printed folders gotten up by the railroads describing the reality of the project, and who will also bear witness to the prominence and experience of the men behind it. By such precautions one can eliminate in a day or two practically all of the unfit irrigation offerings.

In the second place, the land of this Wyoming tract is *waterable*. The company operates under the "Carey act" and thus must establish the fact that its land is irrigable to the satisfaction of the engineer of the State, who personally inspects the project. If it

passes him it must receive the approval of the State Board of Land Commissioners. If their verdict is favorable, the maps, surveys, and so on go up to the Secretary of the Interior of the United States.

Third, the *water* is there. The sufficiency of water supply and the practicability of turning the water on to the land are also questions looked into by the authorities above named. This particular company has made a contract with the State allowing it to take water from the river in question.

Fourth, the *water* is being properly managed. The dam is one of the largest reinforced steel concrete dams in the world. Physically, the reservoir is always the critical point. It is thus important to note that the dam is the Ambursen type of reinforced steel concrete. Forty-odd dams like it are in existence and none has ever "gone out" with a flood.

Fifth, the *water* rights are attractive to settlers. The investor and the farmer have the same interest in the raising of large crops economically. Nearly three-fourths of the 36,000 acres have already been sold, without public advertising,—the briefest possible expression of the farmers' confidence. It is important that there is a town of some 3000 people in the center of the tract, with churches, theaters, banks, a Masonic temple, and so on. The best class of irrigation farmer prefers to live where he can be sociable and send his children to school,—just as you and I.

Under this head comes the marketability of the farmer's hay and apples and the rest. No part of the land is more than 8 miles from one of the standard "granger" railroads. A second one is building an extension through the tract. The Wyoming sheep industry also provides a ready local market for great quantities of hay.

Finally, the man who buys the bonds finds behind them not simply the land but the *water*. This last consideration might have been put first. It is of little avail to hold a mortgage on irrigated land which lacks control over the water that gives the land its value. In the example under discussion the laws of Wyoming provide that the water and the land go together. The contract which the settler buys entitles him to so many acres of land and to so many feet of water. It is these contracts and notes which must be placed with a trustee as security behind the bonds to an amount 25 per cent. in excess of their face value.

IDLE FREIGHT CARS.

THE top point of prosperity is usually accompanied by a "car famine." When there is so much freight to move that shippers get down on their knees begging the railroads for more cars it would seem that the railroads must be at their highest earning capacity. But it does not work out that way.

For instance, only eighteen months ago there were about 600,000 idle freight cars in the United States. Early in July there were still 259,000. There were only 106,000 when September opened and only 38,806 when it ended. It looks as if there might soon be another freight car shortage, such as we had in the early fall of 1907 before the panic turned the figures upside down.

The trouble is that some of these cars are better than others. As long as there is a choice, naturally the tendency will be to use the best. But when the surplus becomes a shortage, everything, modern steel structures and old rattle traps, too, is being worked to the limit. And this means that there will be a higher percentage of freight train delays. Couplings will break, brakeshoes will crack, "boxes" will get hot, and so on. Rolling stock efficiency will average lower. This makes the shipper and receiver cross, and it causes the railroad to spend more money in the earning of each dollar.

Of course, the railroad repair shops have been humming this summer to get all rolling stock in shape for the crop movement and other fall rush. Moreover, second and third trackage has been increased since 1907,—and freight capacity with it. Enormous orders have been placed for new equipment.

But it is a tough job that the railroad has,—to keep from losing money when business falls off 12 per cent., as it did during the year ended June 30, 1908, and yet keep rolling stock enough to handle the flow of traffic now swelling again.

So if the news should come before long that everybody wants more cars it will not necessarily mean that everybody is making more money.

PUTTING ON THE BRAKES ABROAD.

LONDON, October 21.—The Bank of England to-day raised its minimum rate of discount from 4 per cent. to 5.

THAT brief announcement in the daily newspapers was skipped last month by a great many readers who will come back to it before they get through. It may not be

very many months, indeed, before the boss and the mechanic, the capitalist and the clerk, and all the rest who depend upon American business activity will have a practical, unpleasant explanation of that news,—also of the advance to 3 per cent. of the Netherlands Bank rate eight days before and the advance from 4 to 5 of the Imperial Bank of Germany a couple of days before that,—and the marking up of private discount rates to $2\frac{1}{2}$ even in gold-hoarding Paris.

Here is the squeaking of the brakes. Enterprise is moving too fast and must be checked, even so near the usual January slow-down.

The point of all this lies in the question: Why do we read no announcement of a raise in the American bank rate?—and the answer: Because there is no American Bank, no central, patriotic institution to protect the borrowers and business men of this country, to foresee their legitimate, natural calls for money and attract it to America as against other countries by "raising the rate."

We have no "rate" to raise.

It is very difficult for us, in the fast-growing New World, to think financially in terms not of sections, of East or West or South, but of nations. Our own job of money distribution is so immense that bankers themselves are among the most apt to forget how much larger, after all, is the world problem, and how much more important.

All those rate increases last month meant that Europe was shutting up its credit-shop; that Englishmen, Dutchmen, Germans, and Frenchmen, having calculated their own money needs for business, for Government loans, etc., and their own recent lendings to help develop the big, new American country, concluded that the thing had gone about far enough.

So each of the banks named, in its responsible public capacity, decrees that outsiders who want credits from its money center shall pay just so much more for them.

By "outsiders" one reads particularly the United States of America. For instance, on October 14 it was decided in England that people who wanted to "carry over" American stocks would have to pay $4\frac{1}{2}$ per cent. interest, although for other securities the rate was only 3 to $3\frac{1}{4}$.

Lest this should sound as if Europe were trying to "do" America; it may be recalled that she receives from us some \$35,000,000 a month in interest and dividends on money furnished mostly by those very English,

Dutch, Germans, and French. To them American prosperity means more and safer income.

But each of these countries has its own troubles. In England there is the particular duty of guarding the only big, free, international gold market in the world. For instance, the Bank of England folks were figuring last month that they would be furnishing some \$28,000,000 of gold before January 1 to their foreign customers alone,—Egypt with its great cotton crop, Russia, Turkey, South America, and so on.

And every great European bank must retain enough money to care for the new stocks and bonds and notes issued by governments and companies in which its nation is interested; also the loans to its merchants, traders, and speculators of every kind,—all jumping to higher figures with the 1909 good times.

The industrial money needs of the United States are greater than those of any foreign country. Yet it is the only one that has no central bank to protect those needs from a national viewpoint. We have 25,000 sets of bankers, each with the duty of taking care of stockholders first of all. It might be suicidal for any one set to act patriotically. It would be Quixotic, too, because no one set is powerful enough to do much good by itself.

Therefore, because American bankers are the only ones in the civilized world who have no organized way to get together for the best interests of themselves, the American nation is the only one which has not foreseen in time the tightening of money as a world symptom. The 7000 national banks alone, during the first nine months of this year, lost nearly \$14,000,000 of their cash while they were increasing their loans \$378,000,000,—the largest expansion of any similar period in history, with the exception of one, that in 1907. A significant year for comparison!

Of course, the greatest of international economists may be overcautious once in a while. Maybe there is legitimate need for a fair proportion of the enormous sums that Europe has given lately in exchange for American "finance bills." For many of these there will undoubtedly be substituted "produce" bills, bills of lading of wheat, of steel, or what not shipped to Europe.

Yet an unusual number of millions have lately been raised by such obligations for the purpose of holding stocks, particularly those of certain large industries, up to a price which discounts and anticipates a whole lot of prosperity that has not arrived yet.

THE NEW BOOKS.

A FEW OF THE SEASON'S NOVELS.

It is not often that the English-speaking world is permitted a glimpse into the soul life of another people which is so vivid and impressive as that given by the Spanish novelist Ibañez in his powerful novel "The Shadow of the Cathedral."¹ The present mental and social decadence of Spain is set forth with startling force and vividness in the pages of this book. The hero, an idealist educated for the priesthood, abjures his faith and becomes a revolutionary. After a life of flight, imprisonment, and torture he comes back to the cathedral in the old, proud, decadent city of Toledo and spends his last days under the shadow of this institution, which, with its splendor, its pride, its love of tradition, and its narrowness, so aptly typifies the condition of modern Spain. The translation into English has been made by Mrs. W. A. Gillespie.

The latest "preachment novel" of Hall Caine is a story of Egyptian life and English administration in the land of the Pharaohs.² The social, official, and military circles of the Nile country are minutely described with a good deal of plot and melodrama. There is also a great deal of homily and, in the beginning, some action and movement. The "White Prophet," half Christian, half Mohammedan, is the leader of the new Nationalist movement, and his career involves the lives, fortunes, and happiness of all the rest of the characters in the story. On more than one of the more than 600 pages of this novel the reader finds blood-stirring dramatic narrative strength, but from even the most casual perusal it is quite evident that if the tale had been half as long it might easily have been twice as strong.

Readers who have enjoyed the witty, philosophical insight of "Lucas Malet" in her novels "Sir Richard Calmady" and "The Far Horizon" will find in "The Score"³ a good deal more of the same sort of writing,—and incidentally some of the same characters. The old, old question of art versus domesticity from the standpoint of the woman of genius is again taken up and discussed in the author's piquant way.

Recent stories by Elizabeth Stuart Phelps are "Jonathan and David"⁴ and "The Oath of Allegiance,"⁵ the latter the main title of a collection consisting of eleven short tales. These are in the author's best vein, all showing her shrewd but kindly psychological insight. "Jonathan and David" is the story of the love of a lonesome old man for his dog and is full of human dignity and pathos.

¹ The Shadow of the Cathedral. By Vincent Blasco Ibañez. 341 pp. \$1.35.

² The White Prophet. By Hall Caine. Appletons. 313 pp., ill. \$1.50.

³ The Score. By "Lucas Malet." Dutton. 323 pp. \$1.50.

⁴ Jonathan and David. By Elizabeth Stuart Phelps. Harpers. 48 pp., ill. 50 cents.

⁵ The Oath of Allegiance. By Elizabeth Stuart Phelps. Houghton Mifflin Company. 374 pp., ill. \$1.25.



THE CATHEDRAL OF TOLEDO, SPAIN.

(The subject of the powerful novel "The Shadow of the Cathedral," by Ibañez.)

A good, wholesome sketch of American independence, dealing chiefly with a New York college lad who has much dignity and good comradeship about him, is Roy Mason's "When I Am Rich."⁶ It is not quite a novel, scarcely more than a sketch, but there seems to be much promise in the character delineation.

One of those stirring, "rattling good" stories that are full of action, dramatic movement, and intensity of human passion is Rex Beach's "Silver Horde."⁷ It is a tale of the far north of Alaska and contains all the stage scenery and appurtenances necessary thereto. Love and adventure crowd upon each other so swiftly that the reader almost gasps for relief.

A story bringing back vividly the atmosphere of seventeenth century France is H. C. Chatfield-Taylor's "Fame's Pathway,"⁸ which deals with the early life and love affairs of Molière. Pathetic character studies of the Paris of that day are woven into a generally pleasing narrative. The volume is illustrated by "JoB" (the Comte de Bréville).

Most of the year's American novels are stories of to-day, and their scenes are laid either in the South or in the Middle West. In "The Romance of a Plain Man"⁹ Ellen Glasgow de-

⁶ When I Am Rich. By Roy Mason. Dillingham. 343 pp., ill. \$1.50.

⁷ The Silver Horde. By Rex Beach. Harpers. 390 pp., ill. \$1.50.

⁸ Fame's Pathway. By H. C. Chatfield-Taylor. Duffield. 341 pp., ill. \$1.50.

⁹ The Romance of a Plain Man. By Ellen Glasgow. Macmillan. 454 pp. \$1.50.



TEX BEACH, WHOSE NOVEL, "THE SILVER HORDE," HAS JUST APPEARED.

picts the ups and downs of a young Virginian's business career only to show more vividly the constancy of his wife's devotion. Will N. Harben adds "The Redemption of Kenneth Galt"¹ to his series of rural Georgian tales. The book is a protest against the violation of society's established safeguards. Another Southern story of the present is "The Wiving of Lance Cleavage,"² by Alice MacGowan, the author of "Judith of the Cumberland."

In "A Certain Rich Man"³ Mr. William Allen White typifies the Western "get-there" spirit. His hero, after losing all scruples, is at last reached by influences set in motion by an awakened public conscience. Other stories of the Middle West are "The Calling of Dan Matthews,"⁴ by Harold Bell Wright, and the brief tale of "The Moccasin Ranch,"⁵ by Hamlin Garland. Both are characteristic of the region and the people.

BIOGRAPHY AND MEMOIRS.

Mr. Parker's book of recollections of President Cleveland⁶ is easily the most important volume of biography among the publications of the autumn season. It has been known many years that Mr. Parker was on terms of intimacy with Mr. Cleveland, and it adds to the interest of the present volume to know that the plan of the work was heartily approved by its subject, who supplied the author with much of the material. These recollections of a friend present

Grover Cleveland as a sincere and honest public man, who cherished few or no resentments, and was ready throughout his career to make sacrifices for the common good. Mr. Cleveland's opinions of his contemporaries and his candid utterances regarding his own part in national politics are here preserved in the form in which he was willing to have them given to the public. Probably the last political letter written by Mr. Cleveland was addressed to Mr. E. Prentiss Bailey, editor of the *Utica Observer*, on March 14, 1908. In this letter Mr. Cleveland expressed his hope that Governor Johnson, of Minnesota, would receive the Presidential nomination of the Democratic party.

All that the American people have learned about General Sherman in the forty-five years that have elapsed since he became a national figure tends to confirm the early impressions that were formed by his contemporaries. His fearlessness and individuality, qualities that made him a national hero, were displayed in his writings hardly less effectively than in his actions as a commander on the field. In his memoirs he left his own record of his public career, and in the "Home Letters,"⁷ now for the first time published, the man's human qualities are revealed as never before. These are the letters that he wrote to his wife throughout the years of vicissitudes before the Civil War, during the war itself, and in the years of peace that followed. As the editor of these letters, Mr. Howe, points



H. C. CHATFIELD-TAYLOR.

(Whose novel, "Fame's Pathway," is noticed on page 635.)

out, Sherman's letters home were always the frank and authentic records of the events which most nearly concerned him. Their historic importance, therefore, not to speak of their biographical significance, is very great.

¹ The Redemption of Kenneth Galt. By Will N. Harben. Harpers. 353 pp., ill. \$1.50.

² The Wiving of Lance Cleavage. By Alice MacGowan. Putnam. 398 pp., ill. \$1.35.

³ A Certain Rich Man. By William Allen White. Macmillan. 434 pp. \$1.50.

⁴ The Calling of Dan Matthews. By Harold Bell Wright. Chicago: The Book Supply Company. 364 pp., ill. \$1.50.

⁵ The Moccasin Ranch. By Hamlin Garland. Harpers. 137 pp., ill. \$1.

⁶ Recollections of Grover Cleveland. By George F. Parker. Century. 400 pp., ill. \$3.

⁷ Home Letters of General Sherman. Edited by M. A. De Wolfe Howe. Scribners. 412 pp. \$2.

It is said by Professor Sears, the author of a new life of Wendell Phillips,¹ that his subject was oftener before the people and for a longer period than any other public speaker of his generation. When we consider the times of agitation during which Wendell Phillips lived, this statement seems the more impressive, for the anti-slavery cause had many advocates who used the public platform. Dr. Sears has given us a most interesting summary of the life of the great orator, and while he was himself a contemporary of Phillips, he writes in the spirit of to-day.

Mr. Hubert Bruce Fuller brings together in a single volume sketches of the Speakers of the House of Representatives² from Muhlenberg to Cannon. These biographies are prefaced by a



COROT IN HIS PRIME.

(From a sketch used as a frontispiece to Meynell's biography of the painter.)

brief essay on the British and Colonial prototype and followed by an interesting résumé of "The English and the American Speakers of To-Day." The development of the power of the Speaker of the House is one of the phenomena of our political life which comparatively few students of history or politics have estimated at its true significance.

For the first time, so far as we know, a complete and adequate biography of the great French painter Corot has been published. It is entitled "Corot and His Friends"³ and is full of bits of description and general personalia about the genial genius whose devotion to his art is epitomized in his last words: "I hope with all my heart that there will be painting in



MARGARET SANGSTER AS SHE APPEARS TO-DAY.

heaven." The author of this volume, Everard Meynell, says that the keynote of Corot's life was found in the fact that he was always on good terms with himself. A number of illustrations add greatly to the interest of the volume.

Mr. Gilbert K. Chesterton, who is one of the two or three most eminent living English essayists, declares that he is the only person in the world who understands George Bernard Shaw, and therefore does not agree with him. With this apparent paradox as a theme, Mr. Chesterton has written a racy and sparkling volume on "G. B. S.,"⁴ considering the eccentric Irish genius under these different chapter headings: 1, The Irishman; 2, The Puritan; 3, The Progressive; 4, The Critic; 5, The Dramatist, and, 6, The Philosopher.

The personal recollections of Margaret Sangster⁵ cover the period of an active half-century of life. Mrs. Sangster's name comes as near to being a "household word" as perhaps the name of any living American woman. Particularly well is she known to the children of this country from her editorship of and contributions to the *Youth's Companion*, *Harper's Young People*, and other publications for the young.

THREE NEW BOOKS ON THE PROBLEM OF HUMAN FLIGHT.

A very full and painstakingly elaborate work, set forth in popular language, is Charles C. Turner's book, "Aerial Navigation of To-Day,"⁶ originally published in England and handled in this country by the Lippincotts. Mr.

¹ Wendell Phillips, Orator and Agitator. By Lorenzo Sears. Doubleday, Page & Co. 379 pp., por. \$1.50.

² The Speakers of the House. By Hubert Bruce Fuller. Little, Brown & Co. 311 pp. \$2.

³ Corot and His Friends. By Everard Meynell. A. Wessels Company. 301 pp., ill. \$3.25.

⁴ George Bernard Shaw. By Gilbert K. Chesterton. John Lane Company. 249 pp., \$1.50.

⁵ From My Youth Up. By Margaret E. Sangster. Revell & Co. 332 pp., ill. \$1.50.

⁶ Aerial Navigation of To-Day. By Charles C. Turner. Lippincott. 327 pp., ill. \$1.50.

Turner has himself had a long and varied experience in aerial flight, chiefly as a balloonist. His chief aim in this work, he declares, has been to keep himself constantly in the reader's place. The volume is very fully illustrated with portraits, views, and diagrams.

There are few living men who have had such a long, varied, and in general interesting experience with the subject of aerial navigation as Sir Hiram Maxim. His ideas, the results of his experiments, and an explanation of the machinery and methods that have enabled him to arrive at certain conclusions regarding the problem of flight are set forth with diagrams, charts, and other illustrations in his recently issued book, "Artificial and Natural Flight."¹ Mr. Maxim treats the subject, it may be said in general, from the mathematical, scientific point of view.

An excellent handbook of aerial navigation brought up to date is "The Conquest of the Air,"² by Professor A. Lawrence Rotch. Professor Rotch's point of view is that of the meteorologist rather than of the inventor or mechanician. As director of the Blue Hill Observatory he has had many years' experience in the study of atmospheric currents and temperatures by means of kites. His chapter on "The Ocean of Air" will be found helpful to amateur aviators. The remainder of the book is made up of a history of aerostation, descriptions of the dirigible balloon and the flying machine respectively, and a brief forecast of the future of aerial navigation.

SOCIOLOGY.

"The City of the Dinner Pail" is the apt characterization of Fall River, Mass., made by Mr. Jonathan Thayer Lincoln and employed as the title of a little volume of essays on the labor problem,³ which first appeared in the pages of the *Atlantic Monthly* and the *Outlook* and which relate to questions of far more than local application. There are chapters in this book on "The Average Citizen and the Labor Problem," "The Man and the Machine," "The Time Clock," "Trade-Unionism and the Individual Worker," and "The City of Luxury." The writer shows a wide range of information, especially with regard to some of the foreign-born elements in our population, and his suggestions are based on his own experience as a manufacturer and his personal contact with both capitalists and workingmen. His declared purpose is to contribute something to a "better social understanding between the man who buys and the man who sells labor."

In his little book on the American newspaper,⁴ Mr. James Edward Rogers sums up those traits of our daily press which have caused the intelligent foreign observers to indict its honesty and have given rise to severe criticisms on the part of American publicists. Mr. Rogers concludes that the American press is what the American public makes it,—in other words, that it is "a reflex of the nation rather than a leader of it."

In a suggestive work on "An American Transportation System"⁵ Mr. George A. Rankin maintains that we now have all the ills of federal control of the railroads, with none of the advantages which might be expected from it. The States have lost their authority, but the federal Government has not acquired it. The plan proposed by Mr. Rankin is to make the federal Government responsible affirmatively in place of the mere power to negative State action which it now possesses. Mr. Rankin, indeed, would go as far as to consolidate all our railroads in one corporation, limiting capitalization to the actual cost of facilities provided.

So familiar has the phrase become within recent years that nobody now needs to be told when the words "The Great White Plague" are used in the title of a book or a magazine article that the reference is to tuberculosis. Dr. Edward O. Otis, president of the Boston Tuberculosis Association, has given this title to a book⁶ which presents for the every-day reader in plain, untechnical terms the simple facts of the disease known as consumption. In spite of the gravity of the subject Dr. Otis writes in an optimistic vein. Believing in common with the great majority of the medical profession to-day that consumption can be prevented and can even be cured, he devotes this handbook to showing specifically what can be done by individuals and communities to control the ravages of this universal malady. He has incorporated specific directions for eating, sleeping, breathing, and daily habits and exercises.

A second edition of Dr. Kenelm Winslow's work on "The Production and Handling of Clean Milk"⁷ has been called for within a little over a year from the first appearance of the book. An attempt has been made in this revision to supply to veterinary, agricultural, and dairy students, and to health officers, a textbook on practical milk inspection and dairy hygiene.

AGRICULTURE.

Dr. Liberty H. Bailey, who stands at the head of farming experts in the United States, makes a new contribution to agricultural and educational literature in the form of a compact handbook on "The Training of Farmers."⁸ Among the topics treated by Dr. Bailey in this volume are "The Insufficiencies in Country Life," "The Federation of Rural Forces," "Why Do the Boys Leave the Farm?" "The Common Schools and Farming," "The College of Agriculture and the Farm Youth," and "College Men as Farm Managers."

Dr. William Macdonald sets forth in an interesting way the salient facts of what is now universally known as dry farming.⁹ This new branch of agricultural science is defined as "the conservation of soil moisture during long periods of dry weather by means of tillage, together with the growth of drought-resistant

¹ Artificial and Natural Flight. By Sir Hiram Maxim. Macmillan. 166 pp., ill. \$1.75.

² The Conquest of the Air. By A. L. Rotch. Moffat, Yard & Co. 192 pp., ill. \$1.

³ The City of the Dinner Pail. By Jonathan Thayer Lincoln. Houghton Mifflin Company. 186 pp., \$1.25.

⁴ The American Newspaper. By James Edward Rogers. University of Chicago Press. 213 pp. \$1.

⁵ An American Transportation System. By George A. Rankin. Putnams. 464 pp. \$1.50.

⁶ The Great White Plague. By Edward O. Otis. M. D. 330 pp. \$1.

⁷ The Production and Handling of Clean Milk. By Kenelm Winslow. M. D. William R. Jenkins Company. 367 pp., ill. \$3.25.

⁸ The Training of Farmers. By L. H. Bailey. Century. 263 pp. \$1.

⁹ Dry Farming: Its Principles and Practice. By William Macdonald. Century. 290 pp., ill. \$1.20.

plants." Articles in the REVIEW OF REVIEWS have explained the principles and practice of dry farming, but we believe that this is the first book to be published on the subject.

LITERATURE.

A really remarkably strong case has been made out by Rabbi Edward N. Calisch for "The Jew in English Literature."¹ He treats the Hebrew as both author and subject, finding four hundred Hebrew writers of English literature since the Elizabethan days.

A new text-book for schools on English literature, emphasizing its history and significance for the present-day life of the English-speaking world, has just been completed by Dr. William J. Long.² While Dr. Long's style is clear and pleasing, his aim in this work has been, he tells us, "first, to be accurate, and, second, to be interesting."

A year or so ago French literary circles were interested in an anonymous intimate story of a human life which appeared under the title "Le Journal d'un Reclus." The work, partly autobiographical and partly ruminative, was written in remarkably direct and charming style. An English translation,³ also made anonymously, has just been issued. In its simplicity and directness it suggests Rousseau or Amiel.

The entire subject of "English Spelling and Spelling Reform"⁴ is treated consecutively and with great clarity of style by Professor Lounsbury in his latest book on good standards in English. While, as Professor Lounsbury admits, the subject of spelling reform is not a soul-stirring one, it is nevertheless a useful thing to "bring out with distinctness the real nature of the deep-seated disease" under which English orthography labors. Present English spelling, says Professor Lounsbury, has nothing to recommend it but custom and prejudice and nothing to defend it but ignorance. After this, of course, there is nothing more to be said.

That the work of our American writers represents "a substantial and respectable achievement," that it is at the present time "as full of promise for literary art in the future as is the national literature of any land,"—this is the verdict of Dr. William Edward Simonds, professor of English literature in Knox College, who has just brought out his "Student's History of American Literature."⁵ Professor Simonds' work is done in a direct, simple, and logical way, and it seems to us he has accomplished his aim as set forth in his preface of making his text very suggestive and stimulating for study and reading.

Occasionally reference books are so written and printed as to make them interesting to the general reader. In this category, we think, should be included Theodore Stanton's "Man-

ual of American Literature"⁶ and Dr. Calvin Thomas' "History of German Literature."⁷ Mr. Stanton has done a thorough piece of work, particularly useful in the section devoted to the American novel. Dr. Thomas, who is professor of the Germanic language and literatures at Columbia University, has written a careful and properly proportioned history, and has, moreover, stuck to his text,—literature.

OTHER BOOKS OF THE MONTH.

Mr. William H. Wright makes his book on the grizzly bear⁸ intensely interesting. It is a narrative of personal experience rather than a scientific description. Mr. Wright is properly characterized on the title-page as a hunter-naturalist, but his hunting of the grizzly is not all done with a gun. One of the best chapters of the book is an account of a photographic expedition. Besides his own experiences, Mr. Wright draws on the adventures of famous explorers and frontiersmen from Lewis and Clark to James Capen Adams. Mr. Wright declares that the grizzly bear is the noblest wild animal of North America, but the grizzly of the popular imagination is not the real grizzly with which Mr. Wright has become intimately acquainted through years of close association.

A sympathetic description of Labrador, its vastness, and the struggling life of its scattered population is told, to the accompaniment of some interesting illustrations, in a volume entitled "Where the Fishers Go,"⁹ by the Rev. P. W. Browne, one of the oldest members of the Nova Scotia Historical Society. History and incident enliven the description.

In the series of reprints of "Original Narratives of Early American History" the volume devoted to "Narratives of New Netherland"¹⁰ appears at the psychological moment, just as we are engaged in celebrating the three hundredth anniversary of the founding of that colony. The volume begins with the important contemporary accounts of Hudson's voyage of 1609 and concludes with the official report on the surrender of New Netherland by Peter Stuyvesant in 1665.

Three companion volumes on nervousness as a disease treat the subject from complementary standpoints. Dr. Mitchell's "Self-Help for Nervous Women"¹¹ is made up of some familiar talks on the "economy of nervous expenditure." Dr. Sawyer's "The Matter with Nervousness"¹² is a more incisive philosophical dissertation, while Miss Call's "Nerves and Common Sense"¹³ is a collection of pleasant suggestive essays which had previously appeared as articles in several woman's journals.

⁶ A Manual of American Literature. Edited by Theodore Stanton. Putnam. 493 pp. \$1.75.

⁷ A History of German Literature. By Calvin Thomas. Appleton. 430 pp. \$1.50.

⁸ The Grizzly Bear. By William H. Wright. Scribners. 274 pp., ill. \$1.50.

⁹ Where the Fishers Go. By Rev. P. W. Browne. New York: Cochrane Publishing Company. 370 pp., ill. \$1.75.

¹⁰ Narratives of New Netherland. Edited by J. Franklin Jameson. Scribners. 478 pp., ill. \$3.

¹¹ Self-Help for Nervous Women. By John K. Mitchell, M. D. Lippincott. 202 pp. \$1.

¹² The Matter with Nervousness. By H. C. Sawyer, M. D. San Francisco: Cunningham, Curtiss & Welch. 210 pp. \$1.

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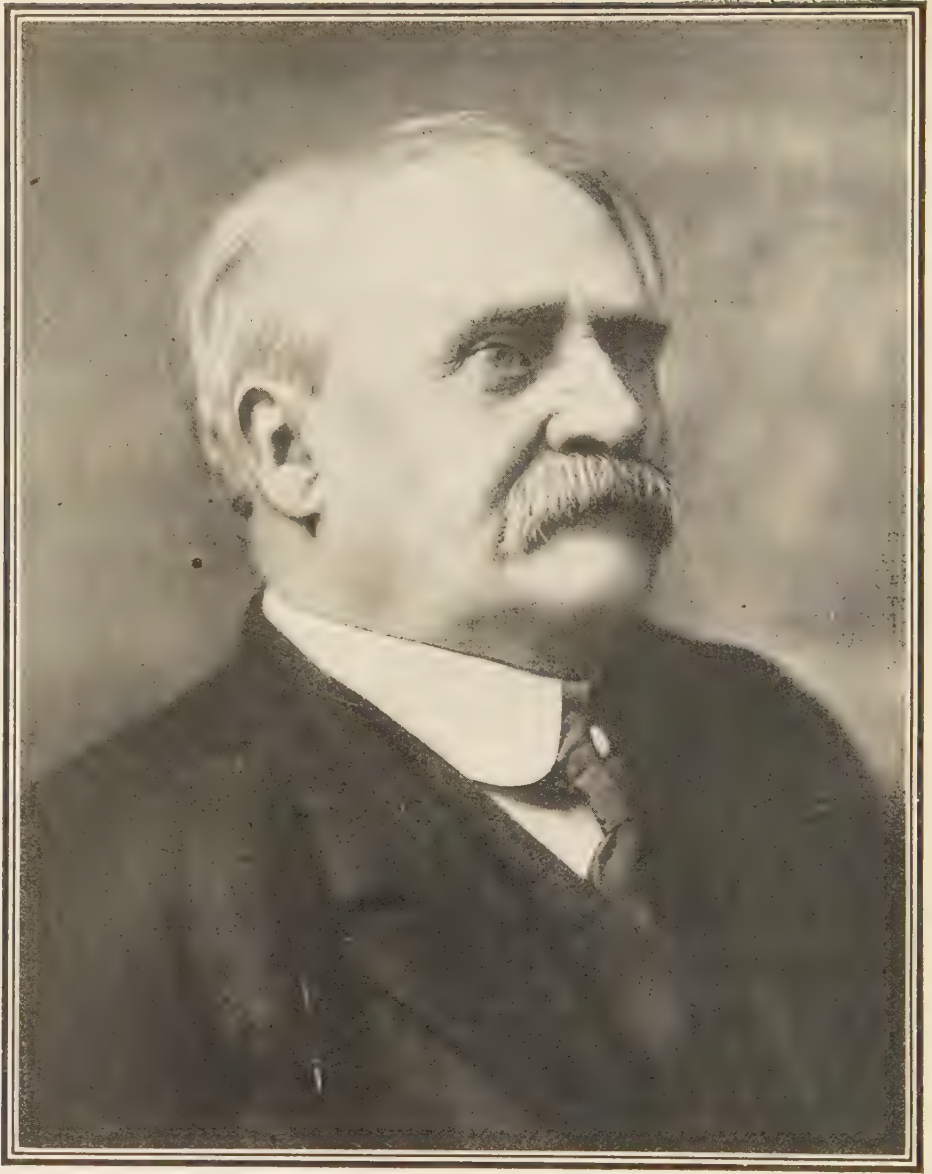
The American Review of Reviews.

EDITED BY ALBERT SHAW.

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Photograph by Brown Bros., N. Y.

JUDGE HORACE H. LURTON, OF TENNESSEE.

(It was announced late in November that President Taft had selected Judge Horace Harmon Lurton, of Nashville, Tennessee, to fill the vacancy on the Supreme Bench caused by the death of Justice Peckham, of New York. For more than sixteen years Judge Lurton has been a United States Circuit judge, having been appointed by President Cleveland early in 1893. Previous to that time he had been for a number of years a judge of the Supreme Court of Tennessee, and was Chief Justice of the State when called to the federal bench. When President Taft was on the bench, he and Judge Lurton were colleagues in the Sixth Circuit, and were also intimate personal friends. At the time of the last preceding vacancy President Roosevelt thought seriously of appointing Judge Lurton, but named Attorney-General Moody instead. A number of questions of great moment are pending before the Supreme Court or must soon be considered by that high tribunal. Judge Lurton was born in Kentucky and educated in Tennessee. He is dean of the law school of Vanderbilt University, at Nashville, and eminent in other respects for his usefulness as a citizen and lofty character as a man.)

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THE PROGRESS OF THE WORLD.

The President's Responsibilities. President Taft's return from his long absence in the far West and along the southern borders of the country was none too soon for the many critical affairs of state that needed his presence at Washington. It will never be possible under our system to define with any precision the line between the immediate executive responsibilities of the President, and those of the cabinet officers within the general range of their departments. Almost everything depends upon the personal equation. No cabinets have ever seemed more harmonious than those of Presidents McKinley and Roosevelt. Mr. Roosevelt's associates in the cabinet were never known to complain that the President meddled in their respective spheres, or failed to support them in all the ministerial authority and dignity that belonged to their portfolios. Yet Mr. Roosevelt's personal equation was very different from that of Mr. McKinley, and his familiarity with the work of departments and bureaus was perhaps greater than that of any President who has filled the office within the memory of man. The protracted absence of a President from the center of government must, of course, have a tendency to develop initiative and independence in the heads of the great departments.

Mr. Taft and His Associates. Mr. Taft has a cabinet of strong-willed men accustomed to exercise authority in those matters,—mostly private,—with which they have had to deal heretofore. It becomes evident that the President will rely greatly upon the wisdom and efficiency of his cabinet officers, as did Mr. Roosevelt before him, and that he will feel it indispensable to his comfort to perform the great majority of his executive tasks not only by their advice but also

through their agency. Yet of course it would never be permissible to think of the President of the United States as a man whose chief duty was to select a Cabinet, each member of which would be President of the country within the range of matters covered by his department. Mr. Taft has yet to settle down to the methods of executive work that will represent his own particular personal equation. Six months from now his methods will be quite well understood. For at least that length of time he will be entitled to the benefit of every doubt, and to all those favorable presumptions that have gone with his long years of valuable service and high reputation.

His Temper and Policies.

There are those who are beginning to say that the President's temper is too kindly and that his grasp is not decisive enough. It is well to remember what was said about Lincoln in his first year. It must be remembered that



NUTS FOR UNCLE SAM TO CRACK.

From the *Spokesman-Review* (Spokane).

Congress met in special session within a few days after Mr. Taft's inauguration. Besides the tariff session, he had upon his hands the work of making many appointments. In the early days of August he went away from Washington, not to return for systematic work until the middle of November. On Monday, December 6, Congress meets for its regular session and Mr. Taft has had to devote himself to the preparation of his first annual and rounded message to the law-making body. In his many speeches throughout the West and South he has so plainly outlined most of his policies and views that the message is not likely to come as a sharp surprise either to Congress or to the business interests of the country. Mr. Taft has seemed to prefer, wisely enough, to let his policies be frankly known in their general outlines. As respects the details of measures that he will cover, he had planned well in advance for the careful co-operation of members of his cabinet and of various experts. His policies and his personal methods will be understood by May or June. Until that time all presumptions are in his favor.

certain Custom House officials to defraud the Government by the false weighing of imported sugar on the docks and by other kindred forms of dishonesty. The first disclosures in this shocking scheme of theft were made about two years ago. Evidence was difficult to secure, but the work of faithful investigators gradually discovered the methods by which the weighing machines were made to give false reports. Indictments and convictions were found, and the Sugar Trust paid the Government more than \$2,000,000 in confession of amounts unmistakably due on cargoes which had been under-weighed. Collector Loeb pressed the investigations with vigor, and the United States prosecuting officers rendered every assistance in their power. Continued inquiry in November brought to light the fact that a much larger number of Government officials in the weighing department were involved in the conspiracy than had been supposed at first. Much excitement followed the discovery that one of the most important and long-trusted superintendents of the refining business of the Sugar Trust was also involved.

*The
Sugar Trust's
Frauds.*

One of the subjects most urgently brought to Mr. Taft's attention in the middle of November was the further unraveling of the shameful conspiracy on the part of the Sugar Trust and

*Are There
"Men Higher
Up"?*

To what extent still higher officers of the American Sugar Refining Company had been connected with the frauds had not yet become a matter of public knowledge. Nor is it



THE BUMPER CROP (TAFT BRINGS IN HIS SHEAVES).

From the *Journal* (Minneapolis).



Photograph, by Harris & Ewing, Washington.

THE PRESIDENT'S OFFICE AS ENLARGED DURING HIS ABSENCE FROM WASHINGTON.

possible as yet to hold the view that any high officers of the customs service at New York or of the Treasury Department at Washington have ever aided or connived at the guilty practices of the Sugar Trust. There is, however, much reason to fear that there was guilty knowledge in high and authoritative quarters on the part of the Sugar Trust, and that there was lack of strong disposition on the part of some of the high officials of the Government to demand a thorough probing of offenses which had begun to be rumored if not quite proven. It seems probable enough that there will be a Congressional investigation, and an opportunity for high officials to make clear their attitude of unhesitating vigor against law-breakers, if their reputations have in any quarter been unjustly assailed.

*Tariff
Makes the
Real Trouble.*

But while Mr. Taft is reported to be so "thoroughly aroused," and while Mr. Cannon and other Congressmen are talking of a probable investigation, it is highly important that intelligent readers throughout the United States should know that the tariff is at the root of the whole trouble in this case. The fault lies at the door of politics; and the remedy is in the hands of Congress. The Sugar Trust has crushed out the competing American refiners of sugar with a ruthlessness and a show of varied resource in method that take almost, if not quite, first rank in the annals of trust methods as pursued by monopoly-

seeking corporations in this country. The Sugar Trust has destroyed, or absorbed, or made secret treaties with its competitors in such a way as to be able to levy a terrible tax upon American consumers, and to roll up great wealth for those who have controlled its methods. But if its activities against sugar importers and other sugar refiners have been wicked, these are as nothing compared with the trail of its evil influence upon the course of tariff legislation at Washington for many years past.

*How the
Law Helps
the Trust.*

The fundamental problem can be easily stated, and can be readily understood by every thoughtful reader. The Sugar Trust has fixed the laws in so arbitrary a way as to compel the importation of sugar in a raw or crude form so that it must all pass through the refining process at the hands of the monopoly. The sugar tariff has been purposely put in a form, through the influence of the Trust, that is extremely difficult to understand or to administer in its precise details. The late Mr. Havemeyer used to tell his friends that for a good many years he was the only man in this country who understood the bearings of the so-called polariscope test upon the practical importation of sugar, so that he was able to reap great profit as against competitors through his knowledge of this scientific scheme of levying duties. Before referring to the tariff as respects the differentials based upon degrees as shown by polariscope test,

however, it will be less confusing to say that crude sugars are those "not above 16 Dutch standard" and the tariff on them remains in the Payne bill just what it was in the Dingley bill, practically a cent a pound (.95 of a cent to be exact). The sugars above 16 Dutch standard are those that are wholly or partly refined, and the tariff upon them is approximately two cents a pound. To be exact, it was 1.95 cents in the Dingley bill and in order to give color to the claim of "reduction downward" it is reduced to 1.90 cents in the Payne bill. The Sugar Trust is built upon the tariff against refined sugar.

*Refining,
as an
Industry.*

Inasmuch as this tariff of virtually two cents a pound on sugar fit for use is so high as in effect to prohibit the importation, the reduction has no purpose except to be misleading. It is a mistake to suppose that the process of refining, as carried on by the Trust, constitutes one of our large and important American industries. What it does constitute in point of fact is one of the most outrageous impositions upon the American public that has ever been carefully arranged by conspiracy between political leaders and commercial ban-

aits. It was this unscrupulous monopoly that ruined the Wilson tariff bill in the course of its passage, and created a condition of things that led Mr. Wilson to condemn his own bill as finally distorted, while causing President Cleveland to refuse to affix his signature. So that it is not the Republican party alone that has played into the hands of this evil and useless monopoly.

*The Trust
Alone
Benefits*

Sugar is not to any large extent a product of our own soil. We are the greatest consumers of sugar in the world, and we have to import most of our supply from other countries. Cuba and the other West India islands are better adapted to sugar culture than any other parts of the world. Our limited Louisiana sugar-growing area is not well adapted to that purpose, and would abandon sugar but for the high duty that gives the planters of a limited coast strip some profit on their crop. The best agricultural experts of the country would strongly advise Louisiana to give up sugar for various other crops that can be advantageously grown on her soil. But even if Louisiana sugar is to be protected for some years to come, this can be done all



THE MAGNIFICENT CUSTOM HOUSE AT NEW YORK

the better by a simple specific duty on imported sugar that shall wholly or practically ignore the distinction between refined and unrefined grades. The same thing may be said of the persistent efforts to develop beet sugar in our Western States into a great and standard American product. The heavy differential between raw sugar and refined sugar benefits the Sugar Trust alone. It is a swindle upon the American public, and it has given the Trust a club by means of which it has intimidated, first, the honest Louisiana cane-growers, and, second, the ambitious and entirely reputable leaders in the movement for the Western growth of beets and the making of sugar from that crop.

Back
to the
Cane-fields!

As sugar is made nowadays in a country like Cuba, the cane is crushed and the initial processes are carried on in great factories in the cane-fields known as *centrales*. These are now so well organized and equipped with machinery that it would be in accordance with natural economies of production to refine the sugar on the spot and make it ready for use. But the American Sugar Refining Company will not permit this. It keeps our tariff law in such a shape that the Cuban cane-grower and sugar-maker must sell his product while it is dirty and of bad color, so that it may be brought to certain spots in the United States where the Trust has built its refineries, in order to be cleaned up and put in condition for a fastidious market.

Will Congress
Face
the Truth?

Is there honesty enough and courage enough at Washington to look the facts in the face, and rectify this scandalous abuse of the tariff principle? Or are we simply to hear innuendoes against officials on account of the Sugar Trust's stealings on the dock? Certainly such dishonesty must be ferreted out and punished; but statesmanship will strike at the Trust in the seat of its real strength and power. Let no tender-hearted person suppose for a moment that any injustice would be done to the Trust by abolishing the differential between dirty sugar and clean sugar. The Trust has been looking far ahead and anticipating just such a deserved fate. It has been getting large control of sources of sugar supply in the West Indies, and will be in ample position to use its present factories for refining its own unfinished sugars if it prefers to do that rather than to complete the process in Cuba or elsewhere.



Photograph by Pach Bros. N. Y.

COLLECTOR LOEB, FORMERLY SECRETARY TO PRESIDENT ROOSEVELT, WHOSE ENERGY IS RE-ORGANIZING THE CUSTOMS SERVICE AT NEW YORK.

As for the labor employed in American sugar refineries, the number of men who would be displaced is not likely to be large enough to constitute a serious factor in the problem, in view of the importance of the question as a whole to the consumer.

Read
Your Tariff
Law.

Now that we have outlined the situation in its main aspects, let us quote the principal clause of the tariff schedule that deals with sugar.

Sugars not above number sixteen Dutch standard in color, tank bottoms, sirups of cane juice, melada, concentrated melada, concrete and concentrated molasses, testing by the polariscope not above seventy-five degrees, ninety-five one-hundredths of one cent per pound, and for every additional degree shown by the polariscope test, thirty-five one-thousandths of one cent per pound additional, and fractions of a degree in proportion; and on sugar above number sixteen Dutch standard in color, and on all sugar which has gone through a process of refining, one cent and ninety one-hundredths of one cent per pound; molasses testing not above forty degrees, twenty per centum ad valorem; testing above forty degrees and not above fifty-six degrees, three cents per gallon; testing above fifty-

six degrees, six cents per gallon; sugar drainings and sugar sweepings shall be subject to duty as molasses or sugar, as the case may be, according to polariscopic test.

Let the reader use his best attention, and give this extract from our tariff law a second reading. Let him then remember that a law of Congress to be made intelligently must be understood by those who make it. Let him then inquire whether his own Congressman can understand the workings of this sugar tariff. Let him ask his Congressman if any man in either House who voted for this clause understands it. Yet somebody must have invented it and got it into our tariff. Who can be the author of this production? It has, of course, in the main, been copied from one tariff law to another. It was invented by the sugar refiners to enable them to break down the business of sugar importers, and furthermore to enable the particular individuals in the refining trade who knew precisely what they wanted to accomplish to beat their baffled rivals at the game of getting their cargoes of crude sugar through the custom house.

Chances
for
Fraud.

Having fixed the tariff in this way, they had accomplished their main purpose. Important to them, but relatively much less important, was the way in which the tariff was administered. The polariscope test requires chemical experts; and the errors rendered possible by reason of the curious series of ascending differentials based upon "degrees" as indicated by the polariscope for a good while gave as much opportunity for fraud as the more vulgar and more easily detected business of fixing the scales to report 10 or 15 per cent. of short weight. The Sugar Trust at the outset entered upon a bold game of rapacity. It has corrupted and debauched scores, if not hundreds, of the minor employees of the customs service while turning its own employees into rogues and cheats. But let nobody for a moment forget that the principal scene of its triumph has been at Washington.

How
to Tax
Sugar.

Let us suppose that it is the policy of the people of the United States to place a tax on imported sugar for the sake of revenue to the Government and of incidental protection to the beet-sugar makers of the West and the cane-sugar makers of Louisiana. The simple way to accomplish this is to do away with

the prohibitive differential that prevents the importation of sugar fit for use; then to abandon the series of smaller differentials based upon polariscope degrees; then to find a simple, inclusive definition of sugar; and then to fix a simple, specific rate per pound upon all sugar imported.

Polariscope
Frauds.

The curious tricks of the polariscope test make the most astonishing variations when the present rates are expressed in their equivalent ad valorem terms. An official table which we print below was published by the Government when the Tariff bill was adopted last August, and was prepared by the Bureau of Statistics of the Commerce and Labor Department, based upon the statement prepared by the Senate Finance Committee. This table gives the importations of sugar analyzed according to the quantities imported for the fiscal year 1907, under different polariscope grades. It also shows the ad valorem equivalents of the duty rates in the clause of the law which we have already quoted. A little thought and a little imagination applied to this table will show how much room there is in actual testing, weighing, and handling of cargoes on the docks of the big sugar refineries at Brooklyn, at Yonkers, and elsewhere,—not merely for falsifying weights but, even more importantly, for juggling and fraud in the chemical tests that directly affect the rate of duty to be paid on a given cargo by the Sugar Trust.



THEY GET IT BOTH WAYS!

Some special interests do not seem to be satisfied with favorable tariff concessions, but find ways of defrauding the Government at the Custom House also. From the *Herald* (Washington).

An Official Table. The table will also show how the heads and experts of the Sugar Trust, who have especial familiarity with this technical and difficult system, can manipulate it not merely for the destruction of the honest and honorable business of sugar importing, but also for the undoing of their rivals in the refining business. The table is as follows:

216. Sugar, Dutch standard in color:		Duty unchanged.	
Not above No. 16, tank bottoms, sirups of cane juice, melada, concentrated melada, concrete and concentrated molasses, testing by the polariscope.		Value of imports, 1907.	Revenue.
Beet—	Per cent.		
Not above 75 deg..	36.12	\$5.00	\$18.42
Not above 88 deg..	69.39	135,474.00	93,995.74
Not above 94 deg..	78.26	6,323,215.00	4,948,296.46
Not above 95 deg..	76.56	149,885.00	114,759.07
Not above 96 deg..	87.16	551,424.00	480,625.63
Cane—			
Not above 75 deg..	23.89	49,146.60	11,742.11
Not above 76 deg..	54.10	62.00	33.54
Not above 77 deg..	40.12	1,167.00	468.16
Not above 78 deg..	30.08	215.65	64.86
Not above 79 deg..	42.42	1,356.00	575.16
Not above 80 deg..	46.08	1,356.00	624.80
Not above 81 deg..	107.49	7,984.00	8,581.99
Not above 82 deg..	25.45	239.45	60.94
Not above 83 deg..	91.08	476,284.10	433,780.34
Not above 84 deg..	27.36	14.00	3.83
Not above 85 deg..	30.34	128.00	38.84
Not above 86 deg..	82.08	66,230.20	54,362.77
Not above 87 deg..	46.16	2,213.65	1,021.75
Not above 88 deg..	81.81	543,253.00	444,461.31
Not above 89 deg..	87.73	20,765.00	18,216.96
Not above 90 deg..	36.56	41.00	14.99
Not above 91 deg..	120.19	1,460.00	1,754.86
Not above 92 deg..	64.90	1,240.00	804.81
Not above 94 deg..	75.33	448,812.00	338,105.26
Not above 95 deg..	70.65	901,837.00	637,153.38
Not above 96 deg..	90.46	11,053,806.00	9,998,995.97
Not above 97 deg..	97.64	250,917.00	244,991.04
Not above 98 deg..	69.40	41,004.00	28,456.06

A Theory and a Practice.

In order not to be unfair, it ought to be explained that the theory of the differential based upon polariscope test is a scientific one. The value of sugar as such is supposed to lie in the greater or less degree of its saccharine or sweetening quality. Crude sugars contain water or other substances which may considerably reduce the value of the cargo for refining purposes as compared, weight for weight, with some other cargo. The polariscope test in theory, therefore, is intended to reduce the raw sugars of varying degrees of sweetness to some common denominator for the purpose of applying to them a correct specific tax. But the system has worked badly in our American practical experience. Thus there are many grades of tea and coffee; but at times when we have put a specific tax of five cents a pound on coffee or ten cents a pound on tea we have not made the mistake of trying to grade and

classify the different kinds and qualities of tea and coffee with a view to granting tariff differentials. Such a system would have invited confusion and fraud. One of the best things, in fact, about the specific duty of ten cents a pound on an article like tea is the effect it has in keeping importers from bringing in so-called sweepings, and other very inferior and harmful grades. In like manner, if we got rid of the maze of sugar differentials, and of the trained scientists who apply the polariscope tests under those extraordinary conditions that the newspapers have recently been describing,—we should be vastly better off.

Discourage Dirty Sugar.

With a straight tax of a cent a pound (or a cent and a half a pound) on sugar, the tendency would be towards standardizing the article at a high test where produced, before bringing it to this country. There is no reason for compelling the American public to pay an enormous additional tax to the Sugar Trust for the privilege of having their foreign sugar cleaned up and whitened in this country. Let us give the foreign producer the chance to send us clean rather than dirty sugar. Let the beet-sugar production of America be amply protected, and let it grow as fast as it will. Let the sugar-growers and sugar-makers of Louisiana have a fair measure of protection for a good many years to come. But let the law which enables the Sugar Trust to break down other refiners, to destroy the sugar-importing trade, to terrorize the Louisiana growers, and to victimize the beet-sugar industry of the West, while also dictating terms to the West Indian cane-growers and interfering with their prosperity,—let this tariff on sugar be radically changed.

A Subject for the New Board.

President Taft has lately called his expert Tariff Board together and has conferred with them about their duties and opportunities. The sugar tariff in all its bearings is a matter that falls unquestionably within the range of the subjects that this board can inquire into. Mr. Reynolds, who with Professor Emory and Mr. Sanders is a member of the board, was recently an Assistant Secretary of the Treasury. He has been accused of having used his high official position to interfere with the investigation of the sugar frauds in New York. Mr. Reynolds strenuously denies the charge, and Mr. Cortelyou



SECRETARY MACVEAGH AND THE NEW TARIFF BOARD.

(From left to right): James B. Reynolds, Secretary MacVeagh, Professor Henry C. Emery, and Mr. Alvin H. Sanders.

who was recently Secretary of the Treasury under President Roosevelt—and who at that time was personally directing the inquiries which have led to some of the recent disclosures,—expresses every confidence in Mr. Reynolds. It is obvious that in his capacity as a member of the Tariff Board Mr. Reynolds will now have an especial opportunity to serve the country by showing the iniquitous character of the existing sugar schedule, and helping to demonstrate the fact that the frauds in connection with tariff administration are the lamentable sequel of a thoroughly bad tariff law.

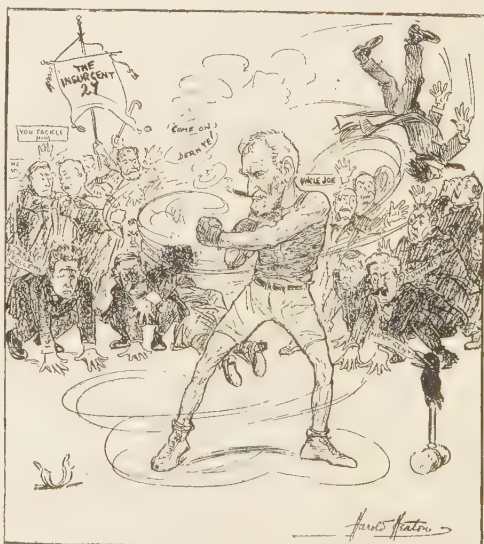
For the
Tariff
Commission.

We have accepted for the present the new tariff law, and we have entered upon a period of business prosperity. The country does not want to go through another immediate struggle for tariff revision, with our present ways of doing tariff work. It devolves upon us to investigate the tariff subject by subject, as in the case of this sugar business, study it thoroughly, get public opinion enlightened and aroused, assemble the necessary facts through a proper tariff board or commission, and then, but not till then, compel Congress to give us simple and intelligent schedules. The existing tariff, which Mr. Taft has praised so beyond its deserts, is full of tricks and complications from one end of it to the other. Mr. Taft was apparently trying hard to do justice to a thing he naturally disliked. Every honest, old-fashioned Pro-

tectionist has now become a tariff reformer. The people who stand by the quirks and tricks in the tariff are the immediate beneficiaries, or those who have acquiesced merely in return for like favors. The people who want a protective policy for the general welfare of the country would like to have a simple, lucid tariff, and they are not afraid of a Tariff Commission that will bring the facts all out into the light. The Tariff Commission bill will not be left in abeyance. Senator Beveridge will bring it forward again, and the manufacturers and business men of the United States who demanded it last winter and spring will continue to ask for it.

Congress in
the Coming
Session.

It is well known that Mr. Taft will advise Congress to amend laws dealing with commerce in such a way as to separate more completely the railroads from the great industrial enterprises. He will doubtless advise the extension of the functions of the Interstate Com-



THE DANVILLE CHAMPION IN FULL SWING.
Speaker Cannon defending himself against attacks from the "Insurgents."

From the *Inter-Ocean* (Chicago).



SENATOR ALDRICH HAS BEEN VISITING THE WEST.

From the *North American* (Philadelphia).

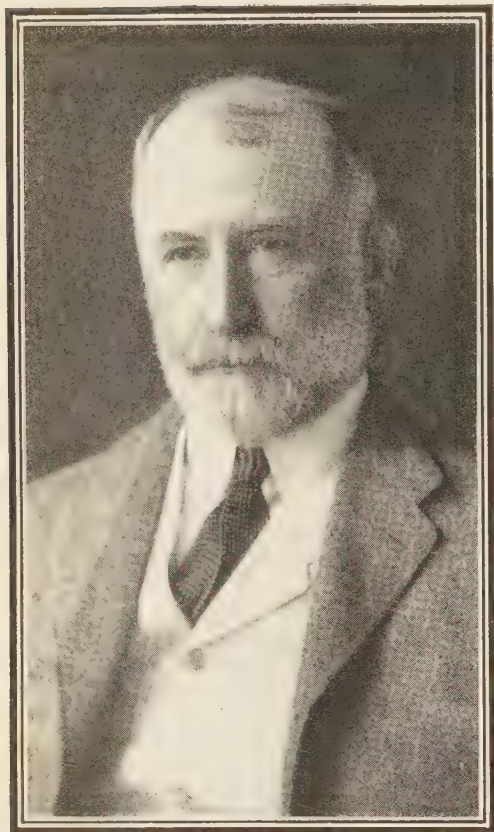
merce Commission in some directions, while for the more judicial of the functions that they now exercise he would prefer to create a strictly judicial tribunal. He has already outlined some of his views upon the modification of the Sherman Anti-Trust law. Attorney-General Wickersham and other members of the cabinet have given great study to the legal and practical details of these proposed changes. Mr. Taft's message will therefore be awaited with much interest and with a good deal of hope and confidence on the part of the business community. It must be said plainly, however, that Congress does not seem to be in a promising mood. The tariff work of the extra session was badly done, and there is not good reason to expect very much clean-cut or statesmanlike legislation at the hands of the present Congress. There are deep fissures of principle that separate groups of Congressmen and Senators belonging nominally to the same parties, and there are bitter personal animosities that threaten discord. Speaker Cannon has been under fire, and he is never meek when his enemies attack him. It is said that there will be a Congressional investigation of the Custom House matters involved in the sugar frauds. Such an inquiry would be distracting and time-consuming, and perhaps not useful. It might be better to investigate the influences that have for so long a time surrounded the making by Congress of tariff

schedules on sugar. The point is that Congress is not coming to Washington this month under any well-regulated control in either house, with a view to giving effect to President Taft's legislative policies.

*The
Nation's
Rulers.*

Speaker Cannon's attitude toward his op-

ponents is not conciliatory, and the insurgents on their part will hardly be in a lamblike mood. The Democrats will be inclined to foment Republican discord in the House. In the Senate Mr. Aldrich is a past master at smoothing out differences, and yet the spell of his great power seems to be breaking. His own real interest is in currency reform, yet conditions will give him no chance to press the conclusions of his Monetary Commission upon Congress this coming year. Perhaps the unexpected will happen, but experienced observers see no prospect for much valuable legislation in the session that will open on December 6. There are some matters of a personal and administrative sort pending, such as the so-called Ballinger-Pinchot controversy, that must have Mr. Taft's keen attention and full courage in order that they may not harm his administration. As respects charges and countercharges in one or two of these cases, it would not be particularly useful to take them up at this moment in the REVIEW, because they are of so delicate a sort as to require a better knowledge than the public now possesses. Mr. Pinchot is a great public servant who has earned the esteem of the entire country. President Taft is as strong an advocate of the so-called conservation policies as his predecessor. Mr. Ballinger's work in the Interior Department is part and parcel of Mr. Taft's administration. The country wishes things adjusted rightly, but also hopes for harmony in the administration. It hopes all the more for harmony in the executive family, because it knows so well that there will be no harmony this coming winter in the halls of Congress. Next November comes a Congressional election, and both parties will have it in mind.



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WILLIAM J. GAYNOR, MAYOR-ELECT OF NEW YORK.

*New
York's
Election.*

Events crowd upon each other with such rapidity and insistence in the American metropolis that to-day's sensation quickly drives yesterday's out of mind. New York's great municipal election occurred on November 2, after one of the most energetic campaigns of many years. The matter was absorbing for the time, but by another week the newspapers had disposed of it and the public had forgotten it. When, however, William J. Gaynor takes up his duties as Mayor at the beginning of next month and the other new officials are installed, the significance of what happened at the polls on November 2 will come up as a fresh topic. Judge Gaynor ran as the Democratic-Tammany candidate for Mayor and received 250,000 votes. Mr. Otto T. Bannard ran as the Republican-Fusion candidate and received 178,000 votes. Mr. William Randolph Hearst ran independently as the Civic Alliance candidate, and his vote was 155,000. The two anti-Tammany candidates together polled 33,000 more than the man who was elected.

*Whose
Victory Was
It?*

Taking this result by itself it is not strange that the country should have the impression that the election resulted in a Tammany victory. There were only two other general officers to be elected on the city ticket at large. One was Comptroller, the other President of the Board of Aldermen. The Tammany candidate for comptroller received 249,000 votes, while Mr. Prendergast, the Republican-Fusion candidate, received 318,000. The Tammany candidate for president of the Board of Aldermen received 249,000 votes, while Mr. John Purroy Mitchel, Republican-Fusion candidate, received 318,000. The next office in importance is the presidency of the Borough of Manhattan. Mr. George McAneny, the well-known civil-service and municipal reformer, was Republican-Fusion candidate and received 135,000 votes. The Tammany candidate received only 110,000 votes. For president of the Borough of Brooklyn the Republican-Fusion candidate received 118,000 votes, while the Democratic candidate had only 93,000. It is not necessary to pursue the election figures any further. The Fusion ticket and the Civic Alliance ticket were identical except for the name at the head. The anti-Tammany votes were concentrated for all the other offices except Mayor, and Tammany was easily and overwhelmingly defeated. Tammany is now in a minority.

*What
Might
Have Been*

The anti-Tammany vote for Mayor was divided between Mr. Bannard and Mr. Hearst, and this fact permitted Mr. Gaynor to be elected. It is not easy, however, to prove either one of two quite different views. There are those who argue from the success of the rest of the ticket that with one candidate for Mayor instead of two, the anti-Tammany people would have secured the chief office. But others contend that if there had not been the two anti-Tammany tickets in the field, Tammany would have gained not only the mayoralty, but all the other offices. The fact is that certain labor elements and the newspapers and political following of Mr. William R. Hearst refused to support Mr. Bannard after the Fusion ticket was made up. The prospect for Fusion looked gloomy. The Gaynor-Tammany people were jubilant. Mr. William M. Ivins, who might possibly have been elected as the Fusion candidate for Mayor (inasmuch as Mr. Hearst and his newspapers would have supported Ivins),

came to the conclusion that Bannard could not be elected and that the only way to save the Fusion cause in part was to persuade Hearst to run independently, with the other Fusion candidates beneath his name in the Civic-Alliance column on the voting paper. Mr. Ivins' shaping of the three-cornered contest for the mayoralty was a very skillful piece of political work. The more common opinion is that Mr. Hearst pulled the ticket through. There are others still who think that if Hearst had not run his vote would have gravitated toward Bannard, with the result of a complete Fusion victory. The thing that would most probably have happened is quite overlooked. There would in any case have been a third ticket, intended to catch the Hearst supporters and radical labor vote; and this ticket would not have coincided at any point with that of the Fusionists. Bannard in that case would have received more votes than he actually got; but he, with the whole Fusion ticket, would have been defeated.

*What Will
Gaynor
Do?*

So much for conjecture. No one knows or can make a good guess what sort of a mayor Judge Gaynor will prove to be. He has not been identified until now with Tammany, having for a long time been on the State bench and a resident of Brooklyn. His colleagues-elect of the Fusion ticket have expressed a strong desire to work with him for the welfare of the city. He has met them half way with like expressions of cordiality and public spirit. New York is an exceedingly good-natured city, with few prejudices against any of its citizens. It will be more than ready to give Judge Gaynor full credit for everything he may do in the direction of good administration. He will have to appoint the heads of most of the great working departments of the city, including the police. The Fusion officials, including the comptroller, aldermanic president, and borough presidents, will completely dominate the Board of Estimate and Apportionment, which levies the taxes and distributes the revenues. But the Mayor and his appointees will largely control the actual expenditure and use of the funds.

*Other
Elections.*

In the few States which held elections last month there was little to command national attention. In Massachusetts there was an attempt to make the tariff an issue, but both the Old

Bay State and her neighbor, little Rhode Island, re-elected their Republican Governors by substantial pluralities. Virginia, following quite as closely in the traditional groove, elected a Democratic Governor, William H. Mann. In Maryland interest was centered on the disfranchisement amendment, which was decisively defeated. Of the municipal elections held in November, that of San Francisco rivaled New York's contest in spectacular interest. It resulted in a setback to the local reform movement, District Attorney Heney being defeated for re-election by Charles M. Fickert, and P. H. McCarthy, Union Labor candidate for Mayor, receiving a large majority of the votes. An "open town" is promised by the Mayor-elect. Mayor Tom Johnson was defeated for re-election in Cleveland by the Republican candidate, Herman C. Baehr. The city of Boston adopted by referendum vote a new method of municipal government which will go into effect next February. This plan provides for the election of a mayor to serve four years subject to recall after two years, and a city council of nine members elected at large for three-year terms. This is a close approach to the so-called "commission plan," now becoming so popular in this country. The first city in New York State to venture a trial of the commission system is Mount Vernon, in Westchester County, which voted on the matter last month. The voters of Pittsburgh decided at the November election in favor of a bond issue of \$8,775,000 for city improvements.

*The
Active Suffrage
Movement.*

The movement for woman suffrage has been much accelerated in this country during recent weeks, as a result, among other things, of the great energy and interest of women in New York. Important mass-meetings have been held in Carnegie Hall, both for organization and for general discussion. The presence in this country of Mrs. Pankhurst, Mrs. Snowden, and some other of the leaders of the suffragist movement in England, has contributed its full share to the arousing of American sentiment. English political machinery is much simpler and more direct than ours, and voting in English elections is a more rational and intelligible process. If the general agitation of the suffrage question can help us to secure better nominating systems, and to reduce the number of elective offices, it will be most welcome. Mrs. Blatch, in a Carnegie Hall meeting last month, gave a



Photograph by Paul Thompson, N. Y.
MRS. PHILIP SNOWDEN.
(Prominent English suffragette.)

delightful account of her experience as a watcher at the polls in the recent municipal election, and her picture of our careless and unintelligent methods has never been surpassed for acumen and fine satire. Next month we hope to present some notes upon the real condition and progress of the woman suffrage movement in the United States. The subject has reached the stage for sincere and considerate study. Of course, no subject can be studied with a calm mind in the presence of a militant propaganda such as the so-called suffragettes are conducting in England. Those methods would hardly promote that particular cause, or any other, under conditions that exist in the United States. Whatever one may think of suffragette methods, however, such leaders as Mrs. Pankhurst and Mrs. Snowden are too able and too deeply convinced to be disregarded. Like most women who take to platform speaking, they are more eloquent than their brethren.

*Against the
Standard Oil
Company.*

On the afternoon of November 20 was published the news that the United States Circuit Court of Missouri had decided against the Standard Oil Company, in the suit brought against it by the United States Government. The Standard Oil Company, of New Jersey, the present holding company of all the seventy or more subsidiaries of the Trust, was declared very unequivocally to be a combination in restraint of trade, within the meaning of the Sherman Anti-Trust Act, passed July 2, 1890. This suit was instituted by the Government in 1906 under allegations that John D. Rockefeller and others and the Standard Oil Company of New Jersey were maintaining a conspiracy in restraint of trade to monopolize interstate and international commerce in oil. Mr. Frank B. Kellogg, of St. Paul, has had charge of the Government's case, which was argued by Mr. Kellogg and Mr. Charles B. Morrison. Among the witnesses called at the hearings were Mr. John D. Rockefeller, the late H. H. Rogers, Mr. Archbold, and other of the founders of the great Standard Oil business. One of our pictures shows Mr. Rockefeller on his way to attend one of the hearings last autumn. Against Mr. Kellogg were arrayed, of course, a number of the ablest lawyers in the country, and it is no small legal feat to have brought the Government's case through to such a sweeping victory.

*The Scope
of the
Decision.*

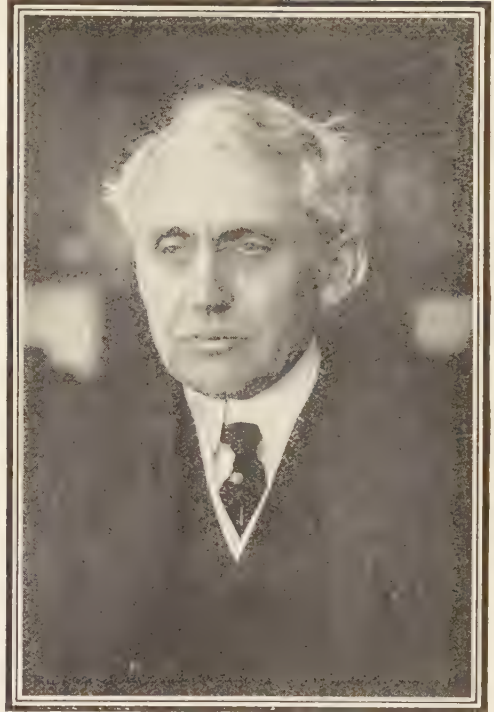
The Circuit Court has in this decision granted the Government's plea for a permanent injunction restraining the Standard Oil Company of New Jersey from continuing in control of its subsidiary companies and from reorganizing in such a way as to repeat the illegal acts complained of. The court's decision lays stress on the fact that the Standard Oil Company was not a combination in which the tendency to monopoly was incidental to a general fostering of its business, the latter being the chief result, but a combination the necessary effect of which was to stifle competition. The device of issuing certificates in a holding company in proportion to the stock ownership in subsidiary companies is condemned by the court as not only a futile effort to bring the Trust within the law, but a clearer reason for its illegality, simply because the device increases the facility of obtaining monopoly. Decisions have rarely been clearer and more positive. The permanent injunction becomes operative

within thirty days unless stayed by an appeal to the Supreme Court, which will presumably be made. Of course, even if the Supreme Court should confirm this decision, it does not mean that the business of the Standard Oil Company would be annihilated. Its lawyers and directors have, naturally, plans for other forms of organization which may come within the law. It is, not unlikely that they will form a great consolidated corporation like United States Steel.



Photograph by Brown Bros., N. Y.

MR. JOHN D. ROCKEFELLER ON HIS WAY TO A HEARING IN THE GOVERNMENT'S SUIT.



MR. FRANK B. KELLOGG.

(Who conducted the Government's suit against the Standard Oil Company to its successful termination last month.)

*Telephones
and
Telegraphs.*

The most important happening in American finance in November was the purchase of stock held by the Gould family in the Western Union Telegraph Company, by the American Telephone & Telegraph Company. The purchaser is the enormous and aggressive concern holding the stocks of the Bell Telephone Companies operating in practically every part of the United States. Its total capitalization is half a billion dollars; with its subsidiaries it has 12,300,000 miles of wire, and its net earnings are at the rate of over \$30,000,000 annually. Of the one hundred millions of capital stock of the Western Union, the American Company is understood to have acquired about 28 per cent. In a corporation with some twenty thousand scattered stockholders, this constitutes a strong working control. A large amount of the stock of the American Telephone & Telegraph Company is in turn held by the Mackay companies, controlling the Postal Telegraph and the Commercial Cable companies. The Postal Telegraph has been the one active competitor of the Western Union; the officers of the

Mackay companies assert that it will continue to compete as before this purchase. President Vail, of the American Telephone & Telegraph Company, has been outspoken in advancing his belief that the administrative union of the telegraph and telephone operations will benefit both the public and the stockholders of the controlling companies. He points out that the offices of the telephone and telegraph lines can be in the same building, which would make not only for economy but for convenience to the public in furnishing close connections for telephoning messages to be sent over telegraph wires.

Rumors of a Copper Merger. Since the middle of October there have been persistent rumors in Wall Street of a movement to consolidate the greatest copper-producing companies of the United States. That negotiations have been carried on looking toward this, or at least toward some regulation of output and co-operation in selling, seems certain. The properties mentioned as going into the merger are the Amalgamated Copper Company, the mines dominated by the Guggenheim family, the United Metal Selling Company, and the extensive interests of the Cole-Ryan group, who control several productive mines in Montana, Arizona and elsewhere. Since these rumors have been in circulation the prices of the leading copper properties have advanced on the exchanges about 20 per cent. With all the rush of renewed industrial activity in the past six months, the unprecedented consumption of steel and the mounting up of commodity prices to the highest point reached in a generation, there has been slow progress toward prosperity in the copper mines. The dividends they are paying are far below those of 1907, inasmuch as a price of 13 cents a pound for copper is not comfortably above the cost of production. The stocks of copper held in Europe and America on November 1 are estimated to be more than 700,000,000 pounds. Overproduction seems to be the explanation of the slow recovery of the mining companies. The group of mines named as forming the rumored merger would control an annual production of some 500,000,000 pounds, the present market price of their shares footing up to about five hundred million dollars.

12 cents in a single year, is certainly illogical and is unfortunate for consumers as well as for mining companies. The manufacturer who has purchased copper at 25 cents a pound and who finds himself obliged to sell his finished product on a market where the prices of finished products are lowered by the sudden fall to 13-cent copper, might well find some comfort in a compromise price that could be held to reasonable stability. Even if, as has been suggested, the rumored merger could control half the American output, it would be an extremely difficult matter to work toward a stable compromise price without stimulating overproduction from the independent half. But the project is understood to be in the strongest and wisest hands, and it is possible that a plan may be worked out that will produce some such steadying effect on copper prices as has undoubtedly been brought to steel prices by the United States Steel Corporation.

Mr. Kennedy's Munificent Bequests. One of the most encouraging features of our present American life is the increasing tendency on the part of possessors of great wealth to make generous distributions toward the alleviation of poverty, the spread of education, and the stamping out of disease. A number of notable gifts, splendid in their munificence and catholicity, have recently been made, to which it seems especially appropriate to refer at this season. Foremost among these benefactions, both for magnitude and range, are those of the late John Stewart Kennedy, of New York, whose will was made public last month. Mr. Kennedy accumulated his vast fortune in banking and the railroad business, and his entire estate is estimated at about \$60,000,000. Nearly one-half of this, or about \$25,000,000, has been bequeathed to various religious, educational, medical, and charitable institutions. The list of legacies numbers forty-six, and includes universities and colleges, missionary boards, hospitals, homes, and other public and benevolent institutions. Among the larger bequests, the sum of \$2,250,000 each goes to Columbia University, the Metropolitan Museum of Art, the New York Public Library, the Presbyterian Hospital, and the Boards of Foreign Missions, of Home Missions, and of Church Erection of the Presbyterian Church. The Church Extension Committee of the Presbyterian of New York, the United Charities, and Robert College of Constantinople each receive \$1,500,000, while \$750,000 each is ap-

Copper Prices. The instability of the price of copper metal is notorious. That a basic commodity of this character should vary in price from 26 cents to

portioned to the Presbyterian Board of Aid for Colleges and Academies, the American Bible Society, New York University, and the School of Philanthropy of the New York Charity Organization Society. Yale University, Williams, Bowdoin, Amherst, Dartmouth, and Hamilton colleges, Tuskegee and Hampton institutes, and the University of Glasgow each receive \$100,000. Among the schools and colleges to receive \$50,000 each are Lafayette, Wellesley, Teachers', Oberlin, Barnard, Elmira, Berea, Anatolia, Northfield Seminary, and Mount Hermon School. The residuary estate, which will probably be large, will also be distributed among certain public institutions. These large benefactions will aid materially in putting more life and strength into numerous agencies for the uplift and welfare of humanity. These gifts by Mr. Kennedy were announced on the day after President Butler of Columbia University had written for this issue of the REVIEW (see page 679) an earnest plea for an adequate endowment of a number of large public institutions, in order that they might better carry on the work of "civilizing New York."



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DR. CHARLES WARDELL STILES.

(Who has made a thorough study of the hook-worm disease in the South.)

The Rockefeller Hook-Worm Commission. Mr. John D. Rockefeller has announced his intention to devote the sum of \$1,000,000 to the eradication and prevention of the hook-worm disease. The hook-worm is a parasite of African origin, that has been discovered and thoroughly studied by Dr. Charles Wardell Stiles, of the United States Public Health and Marine Service. The scene of its operations is mainly in our Southern States, where as many as two millions of people are said to be affected. The hook-worm attacks all classes, but chiefly affects the "poor whites." It is about half an inch long, thrives in sandy soil, and enters the body chiefly through the skin. The worms lodge in the small intestine, producing mental and physical lassitude and anemia, lowering the vitality, and making the subject easily susceptible to serious and fatal diseases. Dr. Stiles declares the cause of the disease to be soil pollution. The campaign of eradication and prevention of the disease will be pushed aggressively along the lines of the introduction of proper sanitary precautions and popular education in preventive measures. A commission of ten, including eminent medical men and prominent Southern educators, has been selected by Mr. Rockefeller to carry on the work. In the expert opinion of these gen-

tle men, the hook-worm disease can be easily recognized, effectively treated, and successfully prevented. There would, therefore, seem to be good reason for hoping that the energetic efforts of this Rockefeller hook-worm commission may succeed in ridding the South of a scourge that, among other results, lowers industrial efficiency.

A noteworthy step in the fight against the great white plague was the organization in New York last month of a tuberculosis preventorium for children. The object of this institution is to take affected children from the congested districts, and by proper treatment in suitable surroundings arrest the progress of the disease and restore the children to a normal state of health. This project was made possible by a gift of half a million dollars from Mr. Nathan Straus, who is already widely known for his efforts in behalf of the health of babies and children by means of supplying wholesome milk. The building used for the preventorium is the Cleveland cottage, at Lakewood, N. J., which Mr.

Straus gave with some additional property. Other gifts to the amount of \$200,000 have been contributed for the equipment of the institution. It is estimated that an endowment fund of a million dollars will be needed to assure permanence to the work. The urgent necessity for a preventorium may readily be deduced from the estimate of Dr. Hermann M. Biggs that there are 40,000 children in the tenements of New York affected with tuberculosis, most of whom could be saved by open air life, pure food, and proper supervision. This institution at Lakewood is the first of its kind in the country, but it is to be hoped that it may soon be followed by similar institutions in the vicinity of other large cities. Another fortune to be devoted to philanthropic purposes is that of the late Miss Caroline Phelps Stokes. Beside specific bequests to charitable and educational institutions, the will of Miss Stokes directs that the residue of her estate, estimated at between \$3,000,000 and \$5,000,000, be used for the erection of modern tenements and the education of negroes, Indians, and deserving white students.

*The Longest
Aeroplane
Flight.*

Aeronautical feats seem to proceed on the theory that one good flight deserves a better one, for scarcely is one record achieved, when another almost immediately follows. The winning of the Michelin Cup by Farman through his long flight at Mourmelon, France, last month will, it is confidently expected, lead to still longer flights here in America during the present month in order that the trophy may remain in this country. The cup was won by Wilbur Wright last December by a flight of 2 hours, 18 minutes, 33 seconds, in which he covered an official distance of 76½ miles. Mr. Farman on November 3 flew continuously for over four hours, and covered a distance of 144 miles. According to the conditions attached to the prize, the cup is awarded for the best record of the calendar year; so that Farman will be declared the winner for this year, provided his Mourmelon record of 144 miles remains unbeaten at midnight of December 31. The question among American aviators, therefore, is, Shall the trophy be allowed to return to Europe? Mr. Wilbur Wright is quoted as saying that he does not think it will,—which is encouraging news for Americans. At any rate, the Aero Club is interesting itself in the matter, and it is hoped that the Wright brothers, Mr. Glenn Curtiss, and perhaps other Amer-

ican aviators will come forward to defend America's possession of the cup. The trials are planned to take place during the last week of this month, and will undoubtedly result in some remarkable flights. Mr. Wilbur Wright declared that the man who wins the Michelin trophy this year will have to fly from dawn until dusk, adding, however, "but that can be done." Our army men whom Mr. Wright has been teaching the handling of the Government aeroplane at College Park, Maryland, have apparently learned their lessons well, for they have successfully demonstrated their ability to man-age the craft. The Germans have been testing the efficiency of their war balloons in maneuvers and sham flights, in which they have circled over fortresses, made feigned attacks and escaped from the imaginary fire of aerial guns.

*Aero-
nautical
Notes.*

Our own Government is about to begin a series of experiments in shooting at airships with cannon, various ingenious types of guns having already been devised by the Krupps for this purpose. It does not seem to be an easy matter to hit a balloon which is capable of rising so high as to appear like a mere speck in the sky. In the German maneuvers the balloons mounted high enough to be out of reach of an enemy's fire, while still remaining in positions from which they could make observations. There promises to be a determined contest, therefore, between the efforts, on the one hand, to perfect guns that will annihilate war balloons and those on the other hand to devise means that will protect the balloons from annihilation. Aeroplanes and balloons are now being advertised and sold for private use, and Mr. Wright, in fact, is quoted as saying that he and his brother have contracted to build a number of machines for "the spring trade." Count Zeppelin predicts the crossing of the Atlantic by airship within two years, and an English Channel service is projected for operation next year. Aeronautical insurance has also made its appearance, and is issued not only to the man who goes up in the air in ships but also to him who stays on the ground and is in danger of having an airship drop on him from above. With the growing use of airships of all kinds, the subject of aerial trespassing is beginning to assume importance. Altogether, the year that ends with this month has been a fruitful one in the field of aerial navigation. It is not too much to predict as much of 1910.



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COMMANDER PEARY AND THE COMMITTEE EXAMINING HIS RECORDS.

(The committee, appointed by the National Geographic Society, consists of, reading from left to right: Gilbert H. Grosvenor, editor of the *Geographic Magazine*; Otto H. Tittman, superintendent of the Coast and Geodetic Survey; Willis L. Moore, chief of the Weather Bureau; Commander Peary; Dr. Henry Gannett, chairman of the United States Geographic Board; Admiral Colby M. Chester, of the Bureau of Equipment.)

The North Pole Question.

The important developments in the polar controversy during the weeks since we went to press with the last issue of this REVIEW have been the passing upon Commander Peary's records by the unanimously favorable vote of the investigating committee appointed by the National Geographical Society, and the definite promise publicly made by Dr. Cook on November 15, that on Thanksgiving Day his private secretary would personally leave New York with his records consigned to the University at Copenhagen for examination. Soon after this issue of the REVIEW has reached its readers the Danish scientists, so Dr. Cook promises us, will be examining the record of his polar observations. The report of the committee of the National Geographical Society, which examined the records of Commander Peary, declares that "it is unani-

mously of the opinion that Commander Peary reached the North Pole on April 6, 1909." The report further heartily commends Mr. Peary for his organization and management and for his contributions to science. Immediately after receiving this report the society appointed a special committee to investigate Dr. Cook's claim to have reached the Pole in April, 1908. In reply to the request of the society that this committee be permitted to "assist in the examination of the data to be furnished by Dr. Cook," the consistory of the University of Copenhagen replied, on November 7, that it found itself unable, for three reasons, to accede to this request: (1) no preference could properly be given to the American over any other geographical society; (2) "it would be unfair to admit representatives of a society which has already taken Commander Peary's

side in the controversy"; (3) the University of Copenhagen "regards itself as quite competent to undertake the examination alone."

*Mr. Peary's
Own
Story.* The main lines of Commander Peary's story setting forth in brief his claims to be the first

man at the Pole were first given to the public in the reports of the addresses made by Mr. Peary at several complimentary dinners tendered him during the month of November. At Washington before the Cabinet and other official, social and scientific notabilities, on November 12, and before the Aldine Association in New York on November 18, the explorer told the successive stages of his journey to the Pole. On the second occasion he so presented his data and inferences that, while no mention was made of Dr. Cook's claims, there was no escaping the conviction that Commander Peary regards his own method and equipment as the only kind of preparation and campaign that would make possible the attainment of farthest north. "My only advantage over my predecessors," said Mr. Peary, "was the experience I have gained through years of Arctic exploration."

The fundamental keynote of my success was experience. Nothing else did it and nothing else could. If the Pole could have been won by a streak of luck or a grouping of fortuitous circumstances or a mere fluke, it would have been won long ago. Had courage and endurance been all that were needed, Italy would have had it in 1905, when Abruzzi pushed her colors to the lead. In the campaign I made I not only utilized but needed every item of the specialized equipment and every iron nerve of the party's veteran personnel. . . . Could a man reach a pole unfatigued,—as he may some day in a flying machine,—and be properly worked up to a state of hysteria, he might experience some peculiar sensations. But a man worn out with fatigue as I was could not analyze his sensations. I did have one overpowering feeling, however, and that was that I had made good to myself, to my friends, and to the flag I had carried there.

His own description of the thoroughness, patience, and "inevitableness" with which his campaign was waged in the Arctic, together with his tribute to his associates, made a deep impression upon those who have heard Mr. Peary speak since his return from the Polar regions.

*Count
Bernstorff
on German
Ambitions.*

One of those remarkable speeches so characteristic of the new diplomacy which is intended to set forth the official view of one government to another upon broad general international policies and tendencies was delivered on No-



PRINCESS VICTORIA LOUISE, THE GERMAN KAISER'S ONLY DAUGHTER.

(Who has recently been confirmed in the Lutheran faith.)

vember 6 at Philadelphia, before the American Academy of Political and Social Science, by Count von Bernstorff, German Ambassador to the United States. Referring to the statements repeated in public speeches and in the press of both the United States and Germany that probable causes of open antagonism between the two nations are to be found in the Monroe Doctrine and trade rivalry, Count von Bernstorff deprecated the "flights of fancy of the so-called Pan-Germanists who are of no importance at all." "If a clash should ever occur between the United States and the German Empire," said Count von Bernstorff, "it will be the result of very foolish policy or the outburst of unbridled jingoism." "As to the Monroe Doctrine," the Ambassador continued, "we in Germany are well aware of the facts, but there is not the slightest intention on our part to get a territorial foothold in the Western Hemisphere." Moreover, he continued, "we have resigned ourselves in all clearness and calm, to the fact, that there is no more possibility of acquiring colonies suitable for emigration." In Germany, if we may believe the utterances of the official and semi-official press, this announcement of imperial aims through the Ambassador is regarded as having been

made with the full approval of the German Foreign Office.

*The
Parliament
at Ottawa.*

The second session of the eleventh Parliament of the Dominion of Canada was opened by the Governor-General, Earl Grey, on November 11. The program outlined by the government includes immediate legislation for the organization of a Canadian navy, in accordance with the resolution adopted at Ottawa last month and on the advice of the British admiralty; ratification of the recently concluded Franco-Canadian Trade Convention; legislation regarding the banking and insurance systems of the Dominion; the regulation of navigable waters; governmental assistance in the eradication of insect pests and enlarged and extended governmental interest in and supervision of existing and projected railroads. It is reported from Ottawa that Premier Laurier favors and will openly advocate, as the governmental naval scheme, the building of seven ships of war as the nucleus of a new Canadian navy which, however, we are informed, "is never to be used, except upon the initiative of Canada herself and for the protection of Canadian interests." Canada's concern over the new American tariff was indicated by the request, made in the first hours of the session, by Mr. R. L. Borden, leader of the Opposition, for all the correspondence on the subject in the hands of the government.

*Libeling
a Non-
Resident.*

A very unusual legal situation was brought to public attention last month when a New York jury returned a verdict of guilty against Carlo di Fornaro, an Italian cartoonist whose work is well known to New York newspaper readers, on the charge of maliciously libeling Rafael Reyes Espindola, editor of the Mexican newspaper *Imparcial*, and a member of the Mexican Congress. Several years ago Fornaro conducted a newspaper in Mexico City in opposition to the government. He also waged war, by means of books and pamphlets, on the Diaz régime. Later he came to the United States and published a book entitled "Diaz, Czar of Mexico,"—a bitter survey of Mexican official affairs. In this book he referred to Señor Espindola as a man of the worst morals, "who has done more harm than a brood of rattlesnakes, and who forged an edition of a rival newspaper for the purpose of putting it out of business.

*Significance of
the Fornaro
Case.*

There is no such thing as proceedings for libel in Mexico. Differences on these points in that country are usually settled by means of a duel between the parties concerned. Fornaro's book, however, was handled by a New York publishing house, and a number of copies actually distributed. It was upon this fact and Fornaro's presence in this country that Espindola began his suit in the American courts. Fornaro was indicted last April and tried on October 27. The contention of the defense that there is no provision in the Penal Code of the United States for prosecution by a non-resident for criminal libel found in a book or publication other than a newspaper was overruled by the court. Fornaro was sentenced to imprisonment for one year. Cases of criminal libel against non-residents have been very rarely brought to the courts of this country. The chief significance in the Fornaro case lies in its interest to the entire American publishing world. It indicates the extent of protection against libel afforded to non-residents by our Penal Code, and goes a long way toward defining the liability of American publishers in printing articles attacking citizens of other countries.

*Cuba vs.
Central
America.*

On the fifteenth of last month President Gomez, of Cuba, presented to the Congress in session at Havana the budget for the year 1910. It is a conservative, well-considered financial statement. According to the President's message accompanying it there is a surplus of over \$4,000,000 in the treasury, an increasing immigration, and a decrease in the rate of mortality throughout the island. President Gomez recommends to the Congress the enactment of a homestead law. In somber contrast with the present condition of Cuba and that of our own island of Porto Rico which, on November 6, inaugurated as governor, Col. G. R. Colton, is the wretched condition of political and economic life in unhappy Central America. Again there is war in Nicaragua, although it is extremely difficult at this distance to clearly see just who are the contending parties and what they are fighting for. Apparently a rebellion of serious proportions, led by General Juan Estrada, has broken out against the authority of President Zelaya. Several battles with uncertain results were reported early last month. Indeed, as we go to press the dispatches are saying that two Americans have been shot by Zelaya's orders and that

the State Department has ordered United States warships to Central American waters. There is a general feeling of unrest throughout Central America, growing out of the Nicaraguan situation, which threatens to undo the work of the Central American Peace Conference, held in Washington two years ago. It is becoming more and more evident that only the strong impartial arm of some outside power can ever reduce the quarrelsome Central American states to that condition of mind and national dignity which is essential to the preservation of national integrity. What the Government at Washington has never wanted or intended to do may be forced upon it by the intolerable conduct of the Central American governments.

*The Lords
and the
British Budget.*

Lord Lansdowne's formal notice that on November 22, when the budget bill came up for its second reading in the House of Lords, he would move for its rejection, "until it has been submitted to the judgment of the country," clarified the political situation in Great Britain, and was, in effect, the first gun of the general election campaign. The dissolution of Parliament and an appeal to the country on this special issue seems certain next month. Lord Lansdowne, it will be remembered, is the leader of the opposition in the House of Lords. On another page we briefly review his public career. The present crisis, of course, has been caused by the budget which Mr. Lloyd-George, Chancellor of the Exchequer, has been piloting slowly and laboriously through the House of Commons since last May. The principal objections to this financial measure, which its opponents denounce as revolutionary and socialistic, are aimed at what the British call the super-income tax (sixpence in the pound on incomes of over £5000 per year), at the taxes on mining royalties, on undeveloped city land, and on incomes derived from "unearned increment," at increased stamp duties on Stock Exchange transactions and at increased death duties (the Inheritance Tax). The Commons passed the third reading of the budget on November 4, and four days later the measure was given its first reading in the Upper House.

*A General
Election in
January.*

The Lords, which have an anti-government majority of more than 300 will, of course, appeal to the country for a verdict on the budget itself, and the government will maintain

that the rejection of a financial measure is not within the power of the Upper House, and that in forcing a dissolution of Parliament, as the rejection of the budget has done, the Lords have infringed upon a royal prerogative, since it is the exclusive right of the King to dissolve Parliament. These are reported to be the program. A bitterly contested and significant by-election which was held in Bermondsey, a workingman's district, one of the Parliamentary boroughs of London proper, on October 28, resulted in a substantial victory for the Unionist candidate, although the combined vote of his opponents, both of whom favored the budget, was a majority of the total number of ballots cast. Americans were interested last month in the presence in this country of two British subjects whose names have been the center of a great deal of newspaper discussion during the past few years. The Honorable T. P. O'Connor, Member of Parliament, or "Tay Pay," as he is affectionately called, has spent some weeks in the United States in the financial interest of the Irish party in Parliament. The other distinguished Irishman is Sir Thomas Lipton, who may again challenge for the America cup.

*M. Briand
and
Parliament.*

Very quietly, and with a highly commendable attention to business, the French Parliament began its autumn and last session on October 19. In his speech at Perigueux some days before the opening of Parliament, Premier Briand sounded the keynote for the session. This address was so characteristic of M. Briand's conciliatory spirit and beautiful clarity of style that the opening paragraphs are well worth quoting. He said:

I desire, simply, to make the Republic loved; to make it so beautiful that France will be forever proud of it, that the Republic will always be agreeable to live in. The religious question being regulated, there is no longer any valid reason why men of good disposition should keep up fratricidal quarrels. We have said to the Catholics: "It is only tyranny that is removed." The next day, the Republic stands holding out its hands and offering benefits. Certain of my concessions have been so broad that my best friends have balked, they have been disturbed as to my real purpose. To-day the proof is manifest that the law of separation has done justice. It is a thing accomplished. But what of the future? It is there that you will recognize in us true Republicans. Reforms are necessary. I do not say, like so many others, that we must have novelty,—endless novelty. The march of progress must not degenerate into a race. What we need is reforms that have ripened.



Photograph by Paul Thompson, N. Y.

"TAY PAY" O'CONNOR, M.P., AND SIR THOMAS LIPTON, TWO EMINENT IRISHMEN, VISITED THE UNITED STATES LAST MONTH.

The Government Program. In his address to the Deputies, the Premier set forth his plans more in detail. Two burning questions will come before the session, and since both of these are likely to have tremendous influence upon the results of the coming Parliamentary election in May next, long and animated discussions are probable. In the first place, the French Church authorities have recently made a public declaration to the parents of the Republic urging, if not commanding, them to keep their children from the public schools. Some of the bishops have publicly forbidden Catholic parents, under penalty of refusal of the sacraments, to send their children to the public schools if Catholic institutions are available. Certain text-books of the governmental schools, moreover, have been interdicted by the church authorities as improper for study by Catholic students. In reply, it is reported, the National Association of Teachers and some of the authors of the books in question intend instituting damage suits. The Ministry of Public Instruction also claims that the French ecclesiastical authorities are revising

the catechism for the purpose of inculcating the idea that it is a religious duty of the faithful to vote only for such candidates as are pledged to defend church interests. The situation has already become an issue between the church and state.

Battle of the "Scrutins."

The two problems of concern to the entire Republic, but particularly to the deputies who are seeking re-election in the coming campaign, is the old one which France has debated so much,—the battle of the *scrutins*. This is the fifth time in the history of the Third Republic (since 1871) that the general method of voting in France has been discussed and changed. Two electoral systems have figured in French republican history, the *scrutin de liste* and the *scrutin d'arrondissement*. Under the first system each voter casts his ballot for all the deputies to which his department is entitled. Under the *scrutin d'arrondissement*, on the other hand, each department is divided into *arrondissements*,—or single member districts,—and each voter votes only for the one candidate of his dis-

trict. The *scrutin de liste* prevailed from 1871-1876. In the latter year the second system was adopted, but after a fierce legal battle in 1885 Gambetta succeeded in restoring the *scrutin de liste*. Four years later the single district (*arrondissement*) system was restored and still prevails.

*The
Merits of
Each.*

The agitation against this method seems likely to prove the leading issue in the electoral campaign next spring, and we gather from the public speeches of Premier Briand and his colleagues that the *scrutin de liste* will again be re-established for the third time. It is claimed in France that the present method of voting by single districts does not provide fairly for proportional representation, and that it also affords opportunities for skillful political gerrymandering. The controversy over the two systems in France is much like that which has been going on in the State of New Jersey over the election of Assemblymen. New Jersey, according to her Constitution adopted in 1844, has the *scrutin de liste*,—that is, all the members of the State Legislature, two Assemblymen and one Senator, are elected on one general ticket. One of the constitutional amendments, voted on but defeated in September last in New Jersey, provided for the adoption of the *scrutin d'arrondissement* by means of the division of the counties into districts.

*Other
French
Topics.*

Among the other topics of widespread, popular interest in France during the past few weeks have been the visit of the Czar Nicholas to Italy, in the course of which the Russian monarch granted an important interview to M. Pichon, the French Foreign Minister; the question of the adjustment of Franco-American trade relations as affected by the new Payne-Aldrich tariff law, and the appointment by President Fallières of a commission under the leadership of former Foreign Minister Hanotaux to "study and further the development of Franco-American political, economic, literary, and artistic relations." Of sensational interest was the trial and acquittal of Mme. Marguerite Steinheil, charged with the murder of her mother and husband, during which some startling revelations were made of the late President Faure's political and personal career. The trial was brief but discussed all over the world, and a great deal of attention in France and abroad was directed to the anom-

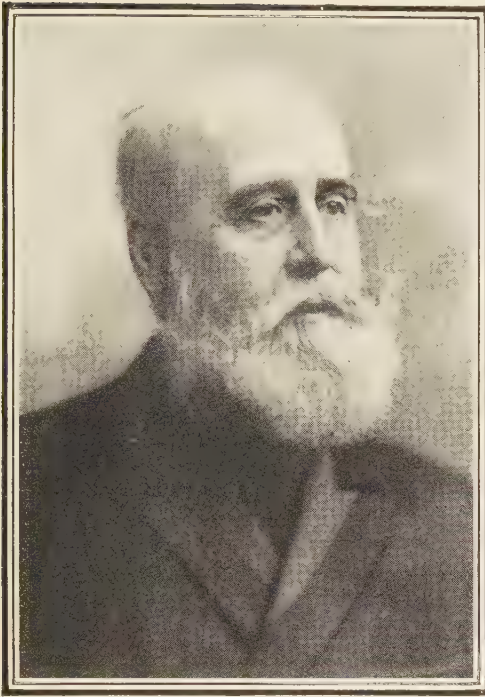
alous functions of the French judge, who is also virtually a prosecutor. This is one of the most extraordinary features of the French administration of justice, a development of the Code Napoleon. The government is now considering a change in this method of legal procedure.

*The Cabinet
Change
in Spain.*

The strain upon the Maura conservative ministry in Spain as a result of the highly unpopular war in Morocco, the disturbances at home, and the furor occasioned by the execution of Francisco Ferrer, have finally broken the spirit of even that veteran Spanish political fighter, Maura. On October 21 the Liberal leader, Señor Moret y Prendergast, concluded in the Cortes a violent attack upon the conservative ministry, and late that day the Premier and his Cabinet resigned. King Alfonso summoned Señor Moret to the Premiership, the latter also assuming the portfolio of Minister of the Interior. In this second capacity he personally assumes the supervision of domestic law and order and the task of pacifying the insurgent provinces of Catalonia and Gerona.

*The
New
Program.*

The Ministry is regarded as a safe and moderate, if somewhat colorless, one, led by one who admittedly surpasses all other Spanish statesmen in intellectual attainments and political experience. Within a week after the change the new government had announced that no more executions would be permitted without full official governmental confirmation of the sentence; the two provinces had been relieved from the administration of martial law, and noteworthy successes of the Spanish arms were reported from the scene of the war in Africa. The Cortes was prorogued on October 27. While the new ministry is Liberal, the Conservative majority in the Parliament is still compact, and no radical changes are likely, or even possible, in the general conduct of the government. There would seem, however, to be much promise for progressive administration in Spain under the new régime. Señor Maura was a reactionary, and, while his party is still strong in the Parliament, the Liberal Cabinet has already been able to demonstrate its good faith at home and abroad. The new Minister of Foreign Affairs, Señor Perez Caballero, announces that Spanish foreign policy will not be altered, that early peace will be brought about with the Moorish Sul-



SEÑOR MORET, THE NEW SPANISH PREMIER.

tan, and the entire Moorish question settled as soon as it is possible to exchange views with France, Germany, and Great Britain.

Czar Nicholas in Italy. Political news and interest in Italy during the past few weeks have revolved around the visit of the Czar of Russia to King Victor Emmanuel. For some years the Russian monarch has owed a social call to his brother ruler. If, however, we may believe the Russian and Italian political press, as well as many of the inspired journals of England and the rest of the continent, the immediate occasion for this visit was the bitter feeling of the Russians and Italians over the course taken by the governments of Berlin and Vienna in the Balkan crisis of a year ago. Czar Nicholas took a roundabout route to Italy, 1800 miles out of the direct road, to avoid passing through Austria, it is said. Three days (October 24 to 27) of festivities and speech-making at Racconigi, near Turin, outwardly indicated only the cordial feeling between the two monarchs. It is generally admitted, however, in European political circles, that highly important exchanges of opinion were made regarding a common Russian-Italian policy in the Balkans. Italy, it will be re-

membered, is allied with Germany and Austria, and for a generation her foreign policy has been tied to the Dreibund. Italian-Austrian animosity is a deep-seated fact of a century's growth. Both Italians and Russians have felt that Austria's appropriation of the two provinces of Bosnia and Herzegovina and her coercion of Serbia were injurious to their mutual interests. It is now being taken for granted in the capitals of the Continent that the meeting between the two monarchs involved hostility to Austria and the possible withdrawal of Italy from the Triple Alliance.

*The Doings
of European
Parliaments.*

Most of the European Parliaments begin their winter sessions in late October or early November. The convocations of the present year all over the Continent have found unusually knotty and vexatious problems facing them. We refer elsewhere to the troubles of the Mother of Parliaments at London; to the delicate questions confronting the French deputies assembled at Paris, and to the grave situation with which the members of the Spanish Cortes have to deal. The Russian Duma has been struggling with the apparently interminable land question and with the revived Russification policy in Finland. The new ministry in Denmark will co-operate with Parliament in dealing with the recently divulged financial irregularities, while the Swedish Riksdag has much trouble on its hands as the result of the recent general strike in that country. The German Reichstag is facing a large national deficit, and its membership, made up, as it is, in part of representatives chosen under a new and unfamiliar electoral system, and under the guidance of a new and as yet untried Chancellor, will have to make haste slowly. In Austria-Hungary the Emperor-King has to deal with a constitutional deadlock in Hungary which has already resulted in the resignation of the Premier Werkerle and the defeat of Francis Kossuth as leader of the National party, and a general recrudescence of race animosities throughout the polyglot Empire. A new Cabinet was formed in Serbia also in the latter part of October, as a result of difference over army questions. In Italy Premier Giolitti will undoubtedly have considerable difficulty in restraining the anti-Austrian utterances of members of the Italian Parliament, who have been aroused by the recent visit of the Russian Czar.

*Problems
Before Greece
and Turkey.*

King George of Greece has been engaged for a year or more in a serious conflict with his army.

Last month when the Boule, Greece's single legislative chamber, declined to effect certain changes demanded in the military and navy establishment by the Military League, a fiery lieutenant of the torpedo boat destroyer flotilla named Typaldos headed a revolt and attacked the government forces at Salamis. After an open battle the mutineers were defeated and arrested. They are to be tried by court-martial. These doings in Greece are, of course, the result of the intense popular feeling of the Greeks against Turkey over the Cretan question. This brings us to Constantinople, where, on November 14, Sultan Mehmed V opened the second session of the Imperial Parliament. Ahmed Riza Bey was re-elected President. The Parliament is facing a deficit of more than \$23,000,000. To meet this and other obligations the Ottoman Government, in the middle of October, succeeded in floating in the United States and Europe a loan of \$30,000,000. Late in October Oubeydollah Effendi, one of the deputies, speaking for Sheik-ul-Islam, the official head of the Mohammedan religion, announced that the Church had accepted the new constitution, that it "deplored fanaticism," and held that it is "not inconsistent for Christians and Mohammedans to work together for the government."

*Assassination
of
Prince Ito.*

The entire world was startled on October 26 by the news that Prince Ito, President of the

Privy Council of Japan and formerly Japanese Resident General in Korea, had been assassinated. While advancing along the railroad station at Harbin, Manchuria, to meet Dr. Kokovtsev, Russian Minister of Finance, who had come from St. Petersburg to discuss with the Japanese representative the problems which the two nations have in common concerning the future of Manchuria, Prince Ito was shot and killed by a Korean. The assassin, who gave himself up at once to the police, announced that he had come to Harbin for the sole purpose of assassinating the Prince, "to avenge my country." The entire subject of Japanese-Korean relations has been more than once set forth in detail in these pages. It cannot be repeated too often, however, that, despite the undoubted benefits to the Hermit Kingdom which have followed upon the Japanese

régime, Koreans generally look upon the Japanese as oppressors and hold Prince Ito responsible for their loss of liberty.

*The
"Bismarck"
of Japan.*

Ito was one of the great men of his country; indeed, one of the really great men of modern history. He has often been compared with Bismarck. He was one of the famous "Genro," or Elder Statesmen (Ito, Matsukata, Inouye, and Yamagata), who have been the real cabinet, the actual advisers of the present Emperor. Hirobumi Ito, who was in his seventy-ninth year at the time of his death, was a true Samurai, sprung from one of the most illustrious fighting clans of Japan. His public career has been almost coincident with the history of constitutional government in the Mikado's Empire. Several times Prime Minister, representative of his country in many delicate and momentous negotiations, and an earnest promoter of the significant treaty with Great Britain, it was the hand of Ito that more than any other molded the foreign policy of Japan, a policy that has raised her in less than a generation to the unchallenged position of a world power. Prince Ito made several visits to the United States and was a genuine admirer of American institutions and the American people.

*China's
Steady
March.*

On the last day of October the government at Peking published its plan for the elections to the Chinese Imperial Assembly, which later will be converted into an Upper and Lower House. The smoothness and steadiness with which the Chinese Government is prosecuting its "campaign of constitutionalism" is no less remarkable than the unanimity with which the intelligent classes of the Empire, so far as their opinions are made known to the world, accept and approve the momentous revolutionary changes which have been in progress for the past year. The plans will require about ten years to carry out fully, it being the purpose of the government to prepare the people for the new dispensation by regular gradation. This year they are being prepared for provincial assemblies, including opening of schools for study of self-government in cities and villages. In the second year members will be elected to the provincial assemblies. Then these will be organized. The fourth year will bring a new code of laws and courts, and in the fifth a system of taxation will be inaugurated. In the years following the



MARQUIS ITO, HIS WIFE, HIS ADOPTED SON, AND HIS GRANDCHILDREN.

(From a photograph taken at his country estate at Oiso, near Tokio, a few weeks before his departure for Manchuria.)

people will be prepared for the preliminary reorganization of the government revenues and expenditures and the establishment of a judicial system. The plans for popular education constitute an important feature of the new movement. Schools are being established in every part of the Empire and placed under educated Chinese scholars who have studied in Japan, Europe, and the United States. On November 16, after most elaborate funeral ceremonies, the remains of the late Dowager Empress were interred in the Imperial burying ground.

*Secretary Knox
to the
Japanese.*

An important speech by Secretary Knox on Japanese-American relations followed by an official declaration from the State Department regarding the attitude of this Government toward the several recently concluded Chinese-Japanese treaties dealing with the polit-

ical and economic conditions in Manchuria, were the important developments last month of our Far Eastern policy. Addressing the visiting Japanese commercial commission on November 3 (the birthday of the Japanese Emperor), Mr. Knox emphasized the cordiality of the general relations between the two governments and peoples, paid a warm tribute to the memory of the late Prince Ito and said:

The long and unbroken friendship of the United States and Japan, of which your visit and this occasion are such happy symbols, and the laudable common purpose of Japan and the United States to respect each other's rights and with frankness, patience, and good temper to adjust such differences as inevitably arise even between nations of sympathetic and common purposes, will be exemplars which will bear fruit and aid in the gradual realization of the noblest ideals for the unity, concord, and prosperity of the world.

*Our Interests
Safe in
Manchuria.*

The declaration of the State Department, which was given to the newspapers on November 15, is, in effect, the acceptance by the United States of the Chinese-Japanese agreement of September 4, in so far as this agreement relates to the mining interests along the existing South Manchurian and Antung-Mukden railroads. The wording of the statement follows:

In view of the widespread publicity of the statement that the recent Chinese-Japanese agreement relating to Manchuria created for China and Japan a monopoly to carry on mining operations along the South Manchurian Railroad and the Antung-Mukden Railway which would exclude American citizens from an extensive field of industrial enterprise, inquiry has been made of the two signatory powers, and official assurance has been received from each to the effect that no such exclusive claim to mining rights was intended by the agreement; and that, if minerals are found by Americans or others within the designated territory no objections will be made to their working such mines under concessions granted by China,—the whole purpose of the agreement being that any operation by Chinese and Japanese subjects of the mines within the territory mentioned should be joint as between themselves. The above assurance confirms the conclusion already reached by the department as a result of its careful study of the agreement in the light of related and contextual evidence.

In this connection it is interesting to note the fact that on November 15 a dispatch from St. Petersburg sent to a Paris newspaper announced that the Russian Minister of Finance had sold the East China Railway to Japan for approximately \$15,000,000. It is expected that some very definite and important announcements regarding Japan's future policy in Korea, as affected by the death of Prince Ito, will be made when the Imperial Diet meets at Tokio on the 22d of the present month.

*Pearl Harbor
Our
Pacific Base.*

A decision affecting the direction and continuance of our foreign policy, particularly in the Pacific, was made early in November, when the President, upon the recommendation of the Joint Army and Navy Board, approved the long discussed plan of making Pearl Harbor, Hawaii, the chief Pacific naval base of the United States. This is one of the finest natural harbors in the world, a little over two thousand miles from San Francisco and commanding all the great commercial highways of the Pacific. It may be safely asserted that holding and defending Hawaii, our entire Pacific coast is free from attack.

The importance of this stronghold, indeed, can scarcely be overestimated in event of war with any naval power in the Pacific. Pearl Harbor, which is situated on the south coast of the island of Oahu, some ten miles from the city of Honolulu, contains more than ten square miles of land-locked water approached by a narrow channel that can be easily and effectively defended, the harbor being capable of safely accommodating the entire navy of the United States at one time. The decision of the joint investigating board as approved by the President comes after a controversy of many years. The right of the United States to establish a naval base at this point was established in 1886 in accordance with the treaty made during Mr. Cleveland's first administration between the United States and the then independent Hawaiian monarchy. It is now planned to supplement the fortifications at Pearl Harbor by a small naval station at Subig Bay, in the Philippines, and to complete the work of fortifying Corregidor Island, near Manila.

*The Socialist
Vote
in Europe.*

One of the most significant phases of the present shift and play of political forces in Europe is the steady gain in the socialistic vote, particularly on the Continent. In England every by-election shows the important influence of the socialistic labor factor in British politics. The socialist electors hold the balance of power in more than one district in greater London, although in the municipal elections held on November 1 in Liverpool, Bradford, Coventry, and several smaller cities, the socialistic candidates were defeated. It is in the Parliaments of the Continent, however, that the present political strength of socialism is most strikingly shown. At the October election in several of the German states there were notable socialistic victories. Of the sixteen seats contested for late in October, representing Berlin in the Prussian Landtag, the socialists captured fourteen, as compared with eleven at the preceding election. This triumph is made more significant by the fact that in the preceding election of November 3 the socialistic vote is represented as being 44,000, as against 26,000 at the election of last year, while the united poll of all their opponents fell off from 8600 to 8100. The results in Baden showed a socialist victory in twenty districts, as against twelve hitherto. In Saxony the socialists captured twenty-four seats, as against one in the preceding election.

RECORD OF CURRENT EVENTS.

(From October 21 to November 19, 1909.)

POLITICS AND GOVERNMENT—AMERICAN.

October 26.—The Standard Oil Company of Indiana is fined \$65,000 for violations of the Texas anti-trust law.

October 27.—Secretary Ballinger makes a statement defining his policy in protecting public lands in the far West....Attorney-General Wickersham announces that the Government will at once appeal to the United States Supreme Court in the so-called Sugar Trust cases.

October 29.—The New York Court of Appeals decides that the election of John F. Ahearn as president of the Borough of Manhattan after his removal by Governor Hughes was illegal.

October 30.—Senator Lodge, of Massachusetts, speaks on the tariff at Boston.

November 2.—Republican governors are re-elected in Massachusetts and Rhode Island; William H. Mann (Dem.) is elected Governor of Virginia; Boston adopts a new form of city government; Maryland rejects the disfranchisement amendment; William J. Gaynor (Dem.) is elected Mayor of New York City with an anti-Tammany majority in the Board of Estimate and Apportionment; Herman C. Baehr (Rep.) is elected Mayor of Cleveland against Tom L. Johnson (Dem.); Dr. Louis Schwab (Rep.) is elected Mayor of Cincinnati; in San Francisco P. M. McCarthy (Union Labor) is elected Mayor and Charles M. Fickert (Rep. and Union Labor) defeats Francis J. Heney (Dem.) for District-Attorney.

November 3.—Mayor McClellan, of New York, appoints three women as members of the Board of Education.

November 4.—Rudolph Spreckels, of San Francisco, announces that he will form a national organization to fight graft in politics and business.

November 6.—In a speech at Chicago, Senator Cummins (Rep.), of Iowa, attacks Speaker Cannon and defends the insurgents in Congress.

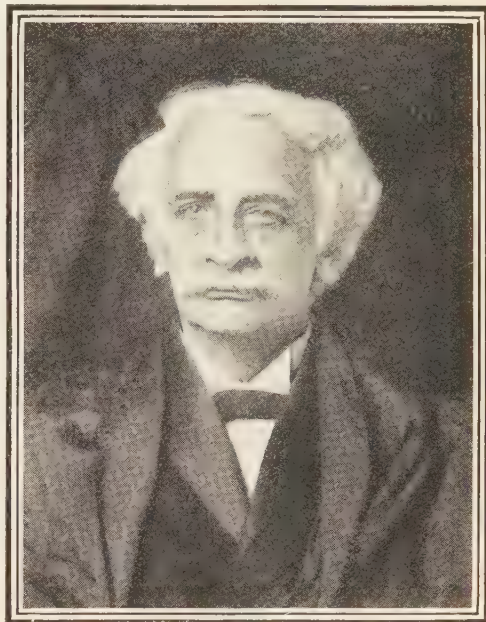
November 10.—Secretary MacVeagh announces his support of Collector Loeb in the prosecution of customs frauds at the port of New York.

November 12.—Indictments for sugar-weighing frauds in the New York Custom House are found against former employees.

November 16.—The United States Civil Service Commission states that twenty-two assistant weighers at the New York Custom House are involved in the sugar frauds.

November 18.—Collector Loeb suspends six inspectors at the New York Custom House, four of whom were assistant weighers on the sugar piers.

November 19.—It is announced at Washington that Judge Horace H. Lurton, of Tennessee, has been selected to fill the vacancy in the United States Supreme Court caused by the death of Justice Peckham.



Photograph by C. M. Bell, Washington.

THE LATE JUSTICE R. W. PECKHAM, OF THE UNITED STATES SUPREME COURT.

POLITICS AND GOVERNMENT—FOREIGN.

October 21.—The Spanish ministry resigns and Señor Moret, the Liberal leader, is called upon to form a new ministry....A largely attended meeting is held in London to protest against the execution of Ferrer.

October 22.—In consequence of an adverse vote in the Danish Folkething, Count Holstein, the Premier, resigns....The British Chancellor of the Exchequer presents the revised budget to the Commons, showing a decrease of \$10,500,000 from the original estimates....Socialists win sweeping victories in the elections for members of the Diet in Saxony.

October 25.—The British House of Lords passes the Irish Land bill in an amended form....The Russian Duma begins discussion of the bill consolidating small land holdings of peasants.

October 27.—General Weyler is appointed Captain-General in Catalonia....A new cabinet, composed entirely of Radicals, with Mr. Lahle as Premier, takes office in Denmark.

October 28.—King Ferdinand opens the Bulgarian Sobranie....The Unionists win a substantial victory in a Parliamentary by-election in London.

October 29.—The Cuban Conservative Na-

tional Committee resolves to oppose the policies of President Gomez.

November 4.—The British House of Commons, by a vote of 379 to 149, passes the budget.

November 5.—The British House of Commons, by a vote of 219 to 54, rejects the Lords amendments to the Irish Land bill.

November 7.—The Governor-General of Finland resigns.

November 8.—The French Chamber of Deputies, by a vote of 291 to 235, rejects the proposal to change the method of election of members of the lower house.

November 14.—The Turkish Parliament is opened; the budget shows a deficit of \$22,500,000.

November 15.—The Persian Parliament is opened by the Shah at Teheran....Lord Morley's plan for reform in the administration of India becomes operative.

November 16.—Lord Lansdowne gives notice

November 18.—The new French budget shows an increase of more than \$40,000,000 over last year....Havana merchants petition President Gomez, of Cuba, that United States money be made the currency of the country.

INTERNATIONAL RELATIONS.

October 22.—The State Department at Washington announces that Americans who wish to ship goods to the closed ports of Nicaragua must do so at their own risk.

October 23.—The Hague Tribunal gives its award in the maritime boundary dispute between Sweden and Norway.

October 24.—There is a cordial exchange of greetings between the Czar of Russia and the King of Italy.

October 25.—The Peruvian and Bolivian congresses ratify the protocol regarding the boundary....M. Kokovtsev, representing Russia, and Prince Ito, representing Japan, meet at Harbin to discuss respective policies of their countries.

October 26.—Moorish tribesmen ask the Spanish forces to open peace negotiations.

November 1.—France imposes the maximum tariff on American goods.

November 2.—Japan evacuates Chien-tao in accordance with the agreement made with China and establishes a consulate there.

November 3.—Porto Rican police seize 2700 lottery tickets shipped from Santo Domingo.

November 5.—Great Britain objects to the rapid decline in the opium traffic due to the reform in China.

November 7.—Brazil and Uruguay sign a treaty defining a section of the frontier by which Uruguay secures valuable concessions.

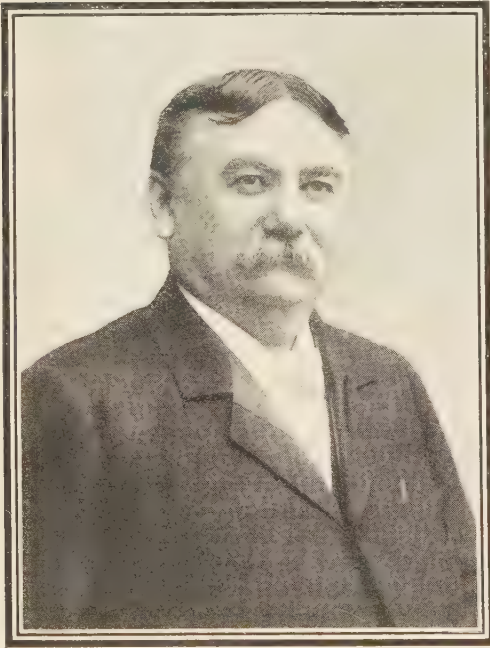
November 12.—The United States asks Cuba for an explanation of the new trade treaty with Spain.

November 18.—The reported shooting of two Americans by order of the Nicaraguan Government causes the United States practically to recognize the belligerency of the Nicaraguan revolutionists and to demand an explanation; two warships are ordered to Nicaraguan ports....The United States demands from Chile prompt settlement of the Alsop claim.

OTHER OCCURRENCES OF THE MONTH.

October 21.—King Edward in London touches a button which opens the doors of the Royal Edward Institute in Montreal.... Twenty-five persons are drowned by the bursting of a dam at Berkos, near Constantinople....The Swiss Aero Club of Zurich officially declares Edgar W. Mix, of Ohio, the winner of the Gordon Bennett Cup in the recent international race....Henry Farman is awarded the grand prize of \$10,000 for the longest flight at the aviation meeting in Blackpool, England....Ex-Judge R. S. Lovett is elected president of the Union Pacific Railroad.

October 22.—An earthquake near Quetta, in India, causes the death of twenty-five persons....The thirty-sixth annual convention of the National W. C. T. U. opens at Omaha....Wilbur Wright makes an aeroplane flight lasting 42½ minutes at College Park, Md.



THE LATE CHARLES N. CRITTENTON.

(Founder of seventy-five homes for women and girls in America and abroad.)

that he will move the refusal of the British House of Lords to agree to the budget as passed by the Commons.

November 17.—The British House of Lords passes the Irish Land bill after modifying the amendments to which the Commons refused to agree....The French Chamber of Deputies adopts the revised duty on cotton seed oil, the general rate being nine francs a hundred kilos....The Diet of Finland refuses to pass the Government bill for Finland's contribution to the Russian military budget.

October 24.—The Nicaraguan Government troops are defeated by General Chamorro on the San Juan River; 400 men are killed and wounded.

October 25.—An international shipping federation is established....The Dominion Government decides to make the vessels of the Canadian navy interchangeable with those of Great Britain....President Taft begins his trip down the Mississippi from St. Louis to New Orleans.

October 26.—Prince Ito, of Japan, is murdered by a Korean at the Harbin railway station....A tidal wave in the Strait of Tabasco, Mexico, causes property losses estimated at \$5,000,000.

October 28.—The American Hospital at Neuilly, Paris, is formally opened....King Leopold, of Belgium, promises to give large sums to fight disease in the Congo....John D. Rockefeller gives \$1,000,000 to fight the hookworm disease in the Southern States....Genoa experiences a terrific cyclone and the Mediterranean coast is lined with wrecks.

October 29.—A violent explosion occurs in a colliery in South Wales; twenty-five men are killed.

October 30.—President Wheeler, of the University of California, and Professor Moore, of Harvard, lecture before the German Emperor and Empress at the University of Berlin....The United States Pacific fleet arrives at Manila....President Taft arrives at New Orleans and addresses the Waterways Convention.

October 31.—The Italian military dirigible *One Bis* flies from Bracciano to Naples, 190 miles.

November 1.—The Italian Government decides to build a fleet of dirigibles.

November 2.—The Court of Appeals of the District of Columbia affirms the sentence of Samuel Gompers, John Mitchell, and Frank Morrison, of the American Federation of Labor, for contempt of court in the Bucks Stove case.

November 3.—Henry Farman wins the Michelin cup at Mourmelon, covering about 144 miles in 4 hours, 6 minutes, 25 seconds, thus breaking all aeroplane records for duration and distance....The National Geographic Society at Washington approves the records of Commander Robert E. Peary and votes him a gold medal....The Carnegie Hero Fund Commission distributes \$33,000, and awards fifty medals for acts of bravery.

November 4.—The United States battleship *North Dakota* proves herself the fastest battleship of the Dreadnought type afloat; she develops 22.25 knots and 35,150 horsepower.

November 5.—The will of John Stewart Kennedy, of New York, disposes of nearly \$60,000,000, half of which goes to public institutions.

November 6.—The University of Copenhagen declines to accept the proposal of the National Geographic Society to be represented by a committee when Dr. Cook's Polar records are examined....Col. G. R. Colton is inaugurated as



BARON YASUYA UCHIDA, THE NEW JAPANESE AMBASSADOR TO THE UNITED STATES.

(Baron Uchida, who succeeds Baron Takahira at Washington, comes to us from the Japanese embassy in Vienna. He is not, as was generally believed when we went to press with this REVIEW last month, the Japanese diplomat of the same name who was formerly consul-general at New York and who early in September was promoted to the rank of minister.)

Governor of Porto Rico....Senator Aldrich, of Rhode Island, speaks in Chicago, outlining the work and purposes of the National Monetary Commission....The New Theatre, in New York City, is formally dedicated and opened.

November 8.—At the convention of the American Federation of Labor, in Toronto, President Samuel Gompers defends his defiance of the courts.

November 10.—President Taft arrives in Washington, completing his journey of 13,000 miles....Fourteen persons were killed and seven injured by a collision on the British Columbia Electric Railway near Vancouver.

November 11.—Pearl Harbor, in the Hawaiian Islands, is selected for a United States naval base in the Pacific.

November 12.—Dr. William Arnold Shanklin is installed as president of Wesleyan University....Great damage is caused by a storm in Jamaica.

November 13.—Madame Steinheil is acquitted at Paris of the charge of murdering her husband and stepmother....Professor Elis Stromgrin, director of the astronomical observatory at Copenhagen, is selected as head of the Danish

committee to examine Dr. Cook's Polar records. A coal mine explosion at Cherry, Ill., kills more than three hundred miners.

November 14.—One hundred persons are drowned after the steamer *Onda*, of the British India line, strikes and sinks *La Seyne* between Java and Singapore. ... The chief of police and the police secretary at Buenos Aires are killed by a bomb.

November 16.—The American Telephone and Telegraph Company secures control of the Western Union Telegraph Company.

November 17.—Heavy snows hamper traffic in Germany.

November 18.—Wagner's opera, "Rheingold," is produced in Paris for the first time. ...



WM. M. LAFFAN OF THE
NEW YORK "SUN."
(Died November 19.)

A train carries passengers through the Pennsylvania tunnel from New Jersey to Long Island City, under the Hudson and East rivers, and the city of New York.

November 19.—The American Federation of Labor votes to continue the salaries of its officers during their terms in jail in case their appeals fail. ... Hubert Latham in an Antoinette monoplane rises to a height of 1333 feet.

OBITUARY.

October 21.—United States Senator M. N. Johnson, of North Dakota, 59. ... Major-General Elwell Stephen Otis, U. S. A. (retired), 71. ... Arthur Wilson, the English steamship builder, 74. ... Dr. James H. Carlisle, president emeritus of Wofford College, South Carolina, one of the two surviving signers of the ordinance of secession, 84.

October 23.—Rt. Rev. William Hobart Hare, Bishop of South Dakota, 71. ... State Senator Patrick H. McCarren, of New York, 60. ... Edward A. Jones, founder of the Metropolitan Life Insurance Company, 85. ... Rear Admiral Henry Erben, U. S. N. (retired), 77. ... E. E. Peacock, manager of the *Morning Post*, of London, 59.

October 24.—Associate Justice Rufus W. Peckham, of the United States Supreme Court,

71. ... Henry Charles Lea, the author and publisher, 84.

October 26.—Major General Oliver Otis Howard, U. S. N. (retired), 79 (see page 687). ... Colonel Theodore A. Dodge, the military historian, 67. ... Prince Ito, of Japan, 68.

October 28.—Major General Robert P. Hughes, U. S. A. (retired), 70.

October 29.—Sir Edmund John Monson, the English diplomat, 75.

October 30.—Col. S. Endicott Peabody, of Salem, Mass., 84. ... Leopold Sonnemann, founder of the *Frankfurter Zeitung*, 78.

October 31.—John Stewart Kennedy, the New York banker and philanthropist, 79. ... Representative Francis R. Lassiter, of Virginia, 43.

November 2.—William Butler, formerly United States Judge for the Eastern District of Pennsylvania, 87. ... William Powell Frith, the English artist, 90.

November 4.—Brigadier General John J. Copinger, U. S. A., 74.

November 5.—Dr. William Torrey Harris, formerly United States Commissioner of Education, 74.

November 6.—William Court Gully, who served as Speaker of the British House of Commons for ten years, 74.

November 8.—Ex-Congressman George G. Gilbert, of Kentucky, 59. ... Lionel Brough, the English comedian, 73. ... Ex-Judge Samuel D. Morris, of Brooklyn, N. Y., 89. ... Charles Bordes, the French composer, 44. ... Miguel Iglesias, the Peruvian general and statesman, 87.

November 9.—Dr. Theodore R. Timby, one of the inventors of the revolving turret used on war-ships, 90. ... Dr. I. R. Whitaker, a well-known Confederate scout in the Civil War, 75.

November 11.—Brigadier General William Beatty Rochester, U. S. A. (retired).

November 13.—Raymond A. Patterson, for many years head of the Washington bureau of the *Chicago Tribune*, 53.

November 16.—Francis Thomé, the French composer, 59. ... Charles N. Crittenton, founder of the Florence Crittenton homes for mothers, children, and helpless girls, 76.

November 17.—Brigadier General Judson D. Bingham, U. S. A. (retired), 78.

November 18.—Richard Watson Gilder, the poet and editor, 65 (see page 681).

November 19.—William M. Laffan, proprietor of the *New York Sun*, 61. ... John B. Tabb, the poet, 64.



THE CARTOONISTS' VIEW OF CURRENT TOPICS.



"WELL, WHO'S FIRST?"
From the *Herald* (Boston).



PLANTING THEIR SIGN.
From the *Post* (Houston, Texas).



WINNING THE SOUTH.
From the *Herald* (Boston).



"DEEP WATERWAYS JULEP," THE NEW TOAST OF THE SOUTH.
From the *Scimitar* (Memphis).

President Taft, on returning from his extended tour through the country, found a number of important problems pressing for settlement. Among the more prominent of

these may be mentioned the Alaskan coal land question and the conservation policy in general, the sugar frauds, some important appointments to be made, and, not least by any means, an annual message to be ready for the meeting of Congress in December.



THE PRESIDENT AND THE "PORK BARREL."

From the *Daily Express* (San Antonio).

THE DEEP WATERWAY, ANOTHER LINK IN FRIENDSHIP AND COMMERCE.

From the *Daily Tribune* (Chicago).

Although President Taft is in hearty accord with the projects for waterways improvement, he has expressed himself rather vigorously in opposition to the "pork barrel" methods heretofore employed in carrying on this work.



UNCLE SAM: "FOR GOODNESS SAKE, THEODORE, HURRY HOME. FOOTBALL NEEDS REFORMING AGAIN."

From the *Spokesman-Review* (Spokane).



THE TARIFF BEING SETTLED, SPEAKER CANNON, SENATOR ALDRICH, AND PRESIDENT TAFT HAVE TIME TO TALK ABOUT OTHER THINGS.

From the *Pioneer-Press* (St. Paul).

The cartoon from the *Pioneer-Press* ironically calls attention to the fact that although the new tariff is finished, the gentlemen chiefly responsible for it are still having a strenuous time with the subject. Senator



THE SENATOR'S GOLD BRICK.

(No matter how good a proposition you have got, it is hard to interest a fellow that you have already "gold-bricked.")

From the *News-Tribune* (Duluth).



DR. ALDRICH IS CALLED TO PRESCRIBE.

From the *Evening Post* (Chicago).

Aldrich has also been busily engaged during the past month in prescribing for Uncle Sam's financial ills, while Speaker Cannon has had troubles of his own. The cartoon from the *Boston Traveler*, representing Uncle Joe on the rampage in the "insurgents'" country, refers to the strong speeches the Speaker has been delivering in reply to attacks on his record.



SPEAKER CANNON ON THE WARPATH.

From the *Traveler* (Boston).



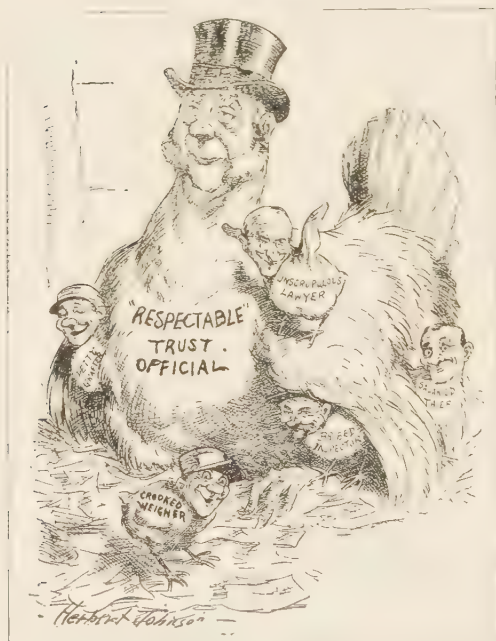
CAUGHT!

From the *Evening Mail* (New York).



THE SUGAR TRUST: "LET ME SEE, WHICH ONE OF THOSE CULPRITS STOLE THE MONEY FOR ME?"

From the *Pioneer-Press* (St. Paul).



A FINE BROOD!

From the *North American* (Philadelphia).

The frauds in connection with the weighing of sugar at the New York Custom House, widely discussed in the newspapers recently, have provoked a great many cartoons, a few of which we present on this page.



UNCLE SAM: "SO, THIS IS WHAT YOU REFINED SUGAR WITH!"

From the *Herald* (New York).



UNCLE SAM: "THERE, NOW, GO FOR 'EM!"

From the *Herald* (Rochester).



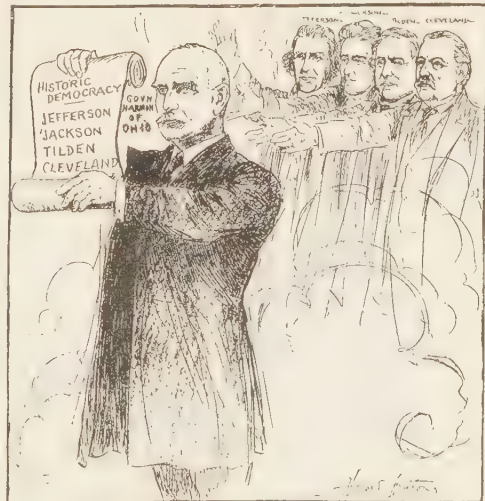
MRS. PANKHURST, THE LEADER OF THE ENGLISH SUFFRAGETTES, HAS ARRIVED IN NEW YORK.

From the *Spokesman-Review* (Spokane).



THE KIDNAPPER.

From the *Journal* (Detroit).



IS THIS THE DEMOCRATIC MOSES?

From the *Inter-Ocean* (Chicago).

APROPOS OF SOME EARLY PRESIDENTIAL BOOMS.



CHORUS OF ESKIMOS:

"We swear that Peary lies when he says Cook lies, and that Cook lies when he says Peary lies; and that we are lying when we say no one is lying."

From *Lustige Blätter* (Berlin).

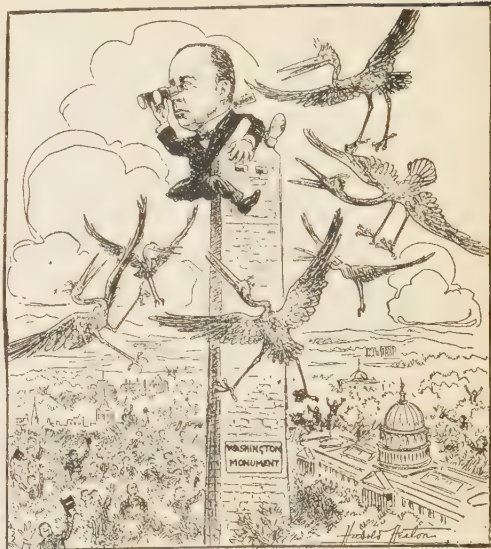
"Fusion" making a "beautiful rug" of the Tammany Tiger, refers to the splendid victory of the Fusion forces in the recent New York campaign.

The post of Minister to China, from



IT MAKES A BEAUTIFUL RUG.

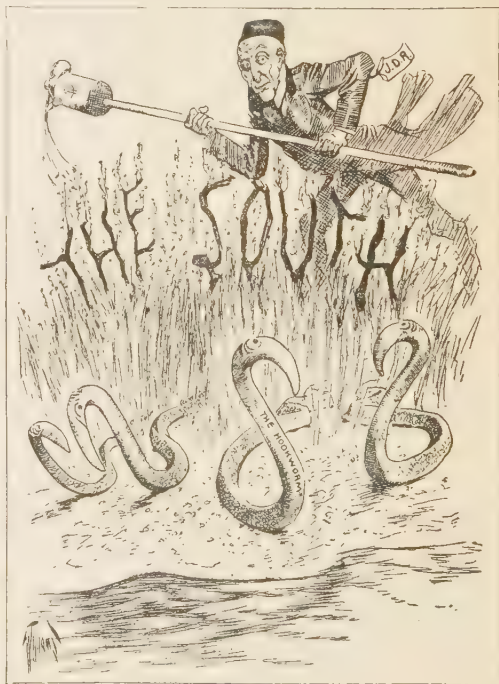
From the *Eagle* (Brooklyn, N. Y.).



WANTED: THE RIGHT MAN FOR CHINA.

From the *Inter-Ocean* (Chicago).

which Mr. Crane, of Chicago, was recalled, still remains vacant, and Secretary Knox is pictured in the above cartoon as being perched on top of the Washington Monument scanning the country for the right man.



THE MODERN ST. PATRICK.

From the *Herald* (Boston).

(Apropos of Mr. Rockefeller's Hookworm Commission.)

HOW TO CIVILIZE NEW YORK.

BY NICHOLAS MURRAY BUTLER.

NEW YORK belongs to the very limited class of cities whose welfare represents a nation's standards and affects a continent's reputation. London, Paris, and Berlin are its certain companions in that class. The activity of such a city's government is to be directed mainly to the tasks of providing clean and well-paved streets; ample parks and playgrounds; proper docks and wharves; security from violence, disorder, and fire; a plentiful and pure water supply; wisely planned and well-conducted schools, both general and special; protection against unsanitary and overcrowded dwellings and against contagious disease; and adequate and cheap intra-urban transportation.

Long years of well-directed effort might conceivably accomplish all these ends. Such a fortunate city would be even then inhabited only by barbarians and Philistines if nothing more were done for its population. It would be like a sanitary ant hill, the home of millions of orderly and industrious ants. But it would not be a city of civilized men; and a thousand years hence its name, if remembered at all, would be linked in history with those of Tyre, of Sidon, and of Carthage, rather than with those of Athens and of Rome.

To civilize a city is to build on the broad basis of an orderly, healthy, and well-governed community those great institutions of light and leading that direct and stimulate thought, that refine and elevate taste, and that make life more full of the joys of reflection and of appreciation. A city in which those institutions and agencies are amply endowed, intelligently conducted, and successful in reaching and uplifting all classes of citizenship is a true *Culturstadt*. To live in such a city is a joy, for it will always draw to itself the very best that its own nation, and the world, has to offer.

A group of men, had they adequate wisdom and courage, could start New York well on its way toward civilization in their own lifetime, if such an ideal really took hold of them. The spirit that would animate them would not lead them to found new institutions, to waste and to duplicate; nor would it allow them to think of exalting their own

names. It would not permit them to dribble their millions away in a hundred little things, all useful and all relatively unimportant. It would rather lead them to make their money reproduce itself a hundred times over, and forever, by putting tried and tested institutions in position to do their utmost and their all. In this way such men would add to their own gifts and make doubly useful the millions given by other men who had preceded them.

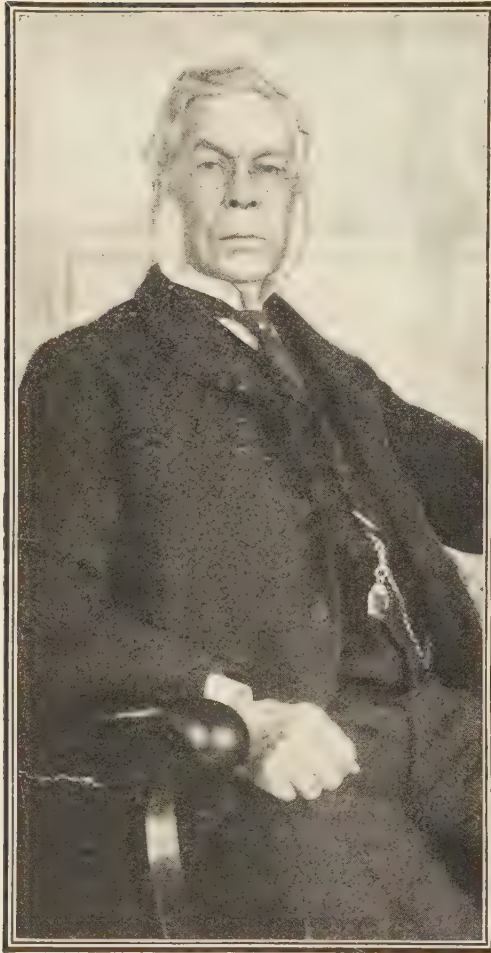
Such a spirit of high service, bent on civilizing New York, would see that there were needed (1) a university, directed by the best scholars and highest spirits, amply endowed and equipped for its work; (2) a great public collection of art objects so ordered and arranged as to be useful to the scholar and instructive to the public; (3) a library so rich in the literature of all time and so competently managed that the intelligent reader might always turn to it assured of helpful service; (4) music and drama that would not only educate and refine the musical and literary taste of the community, but delight and charm the leisure hours of tens of thousands of the city's population as well; and (5) a group of hospitals for the relief of the sick and suffering, where all service and equipment would be the best that science could devise and money could supply.

New York has the beginnings, and much more than the beginnings, of all these great instrumentalities for civilization; but they are crippled and starved. This generation and another, too, may pass before they are made really effective in the highest degree. Why should they be crippled and starved when the help they need runs yearly to waste in their very sight from the hands of men who eagerly profess a preference for civilization over barbarism?

Suppose, for example, that ten million dollars of free endowment was added to the resources of

(1) Columbia University, already one of the most noteworthy groups of productive scholars in the world; of

(2) The Metropolitan Museum of Art, only just now entering on a broadly conceived policy of public service; of



THE LATE JOHN STEWART KENNEDY, OF NEW YORK.
(Whose princely bequests for educational purposes were announced last month.)

(3) The New York Public Library, soon to take possession of its monumental home; of

(4) The Metropolitan Opera, the New Theater, the Philharmonic and the Symphony societies, federated for the purpose of rendering the best possible service to music and the drama; and of

(5) The Presbyterian, St. Luke's, and Roosevelt hospitals (for example), federated to administer a common fund and to serve the public in closest co-operation.

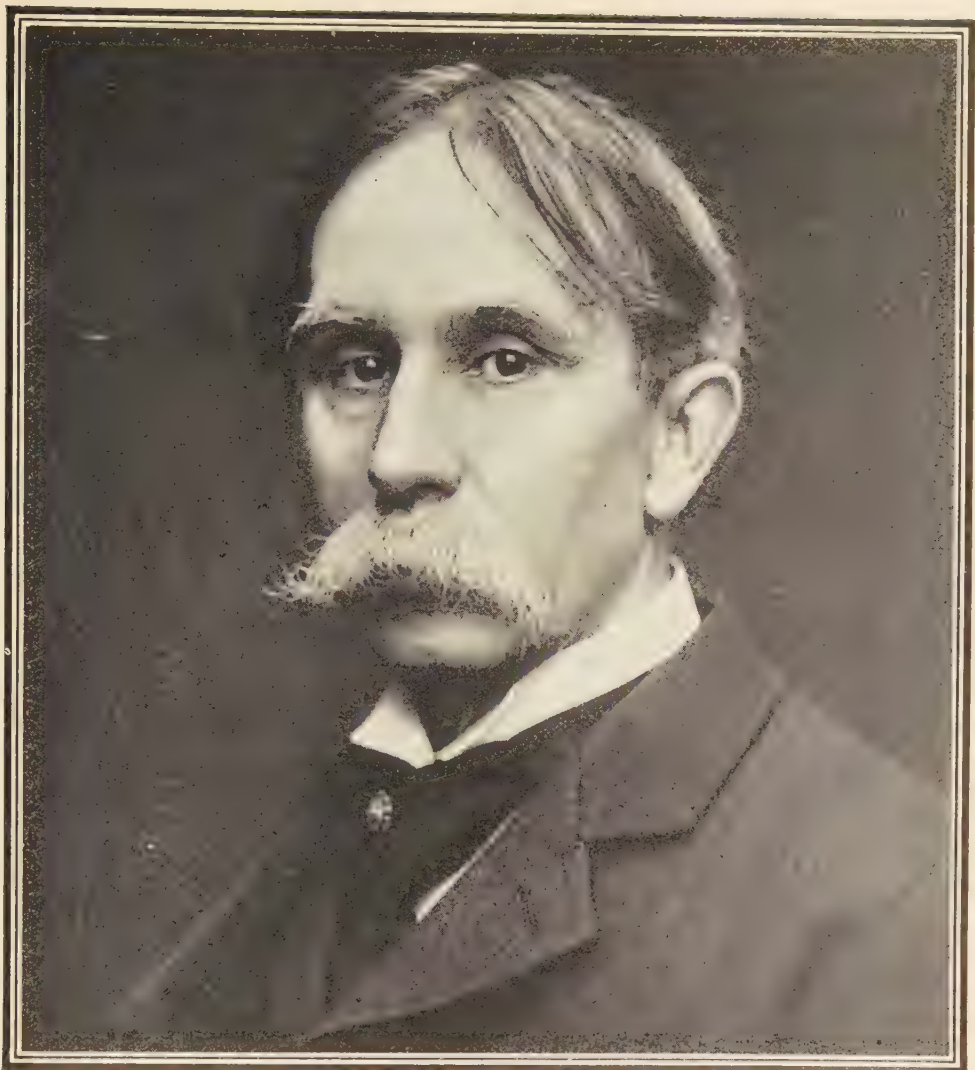
Then, suppose that an additional ten mil-

lion dollars was put into the hands of a small board of carefully chosen trustees, to fight and exterminate first tuberculosis and afterward other diseases that ravage mankind.

This program calls for \$60,000,000. That sum so apportioned would set in active and effective motion well-organized influences, recognized the world over as of high excellence, to civilize the people of New York and to stimulate the civilization of all America. This is not a task just now for the taxpayer, nor for all taxpayers; it ought to be the swiftly realized opportunity of the men whose many millions have opened their eyes, not blinded them, and whose hearts are set on human idealism and human service, and not on leaving behind them the highest pile of precious metal ever accumulated by the Croesuses and the Midases, who had the capacity to get but not the vision to give.

New York is called upon month by month to meet the necessities of undertakings and institutions in all parts of the land. Any educational or philanthropic enterprise, wherever situated, which feels an ache or a pang, from mere growing pains to downright hunger, sends a representative to New York for aid. This is all well enough, and New York owes it to its primacy to satisfy these needs when it can; but where is the spirit of service that is to civilize New York?

These words were written and in type when public announcement was made of the disposition directed by Mr. John Stewart Kennedy of his princely fortune. The spirit of service and of sacrifice had entered fully into his noble soul. For four of the five great institutional agencies for the upbuilding of culture and the uplifting of civilization that are named above, he made beneficent provision. The example of one such man, actuated through a long life by the highest principle and filled with the noblest impulses, is worth many times more than all possible exhortation. The spirit that is to civilize New York and give to it the dominant place in the intellectual life of the world to which it may justly aspire, is alive and at work. Mr. Kennedy has pointed the way and has trod in it with a wisdom and a generosity that are without precedent.



Photograph by Hollinger, N. Y.

THE LATE RICHARD WATSON GILDER, OF NEW YORK.

(Mr. Gilder, who died suddenly on November 18 at the age of sixty-five, had been editor of the *Century Magazine* since 1881. He was the author of six volumes of verse and had taken an active part in civic affairs.)

RICHARD WATSON GILDER.

BY JOHN FINLEY.

MR. GILDER lived the larger part of his life in a great city. He saw that city grow out of the great town into which he came a young man. He saw the trees and fields gradually disappear and the first tenements and skyscrapers appear. He saw the hordes of strange peoples come into the streets. He saw the struggle for wealth grow intense, and he saw fashion increase its foolish and extravagant tyrannies. Yet was his life as simple in its ways, as free of pretense and avarice, his soul as unsullied, as if he had spent his days in the old home place at Bordentown, where his body rested for a few minutes on its way to burial. This is a fact of his life most significant and hopeful in these days of urban dominance, that into the midst of the city he imported and

there kept the best of the solitudes, adding to it out of the riches of association, that in its midst he cherished the purest ideals, lived the happiest, richest of lives without wealth, and sang his best songs. It was to him a "city of glorious days, of hope, of labor, and mirth." To be sure, he went often to the country, and he had always the whole world and universe for the field of his interest, but he saw everything, even remembered valleys and sunsets, from the place of "our homes and our hearts,"—and they were built and lodged in the city, by the stream of the living world, one plunge in whose mighty torrent "is a year of tamer life." And so he was the voice of the city, its prophet and poet.

What he did to make the city a better, a more beautiful place to live in, is now well known. Light and air in darkened tenements, parks and school playgrounds, and protection from fire, these are some of the blessings that came of the labors of the Tenement House Commission, which took its name of his chairmanship. He was of those who started the private kindergartens, and as the first president of the New York Kindergarten Association, gave impetus and support to that movement in this country. These are but illustrative of his civic interest and activity. There has not been an effort for the bettering of things in the City of New York that has not had all the sympathy and aid that his voice and pen and frail body could give. There is evidence in his writings of his disgust with those reformers who "blate and babble and groan" for their own glory, and he seems to have wondered sometimes if it were not "best just to let the Lord alone" and to go on one's silent way, not mixing "with the noisy shame." But that mood did not represent his possessing attitude. He is constantly calling his "Spirit of Song,"

which once he likened to the lance of the old-time knight, to go with him into the strife again, to help right what is going wrong and "hurry the time of promised peace."

He brought his gifts to the city, as his love began there. Once he said of it:

"Who loves it not, he cannot love his land,
With love that shall protect, exalt, endure."

But his patriotism had a wide horizon. He earned in the service at his own door an enduring, exalted love of country. He went, a stripling, into the Civil War, and though he had all the gentleness of a woman, he had all the virtues of a rugged soldier,—the soldier's fortitude, the soldier's unselfishness, the soldier's faith. And he gave all he had to give with splendid carelessness of life and its material rewards. Presidents of differing political faiths called him into their counsels and made him an abiding friend. They found the fearless soul in that delicate body, and kept at hand the advice both of his practical sense and of his poetic vision. But he gave to others in humble positions and narrow horizons not less willingly or lavishly. And, as we all know, he gave to millions whom he never saw.

What was so satisfying in his expression, whether in verse or prose, was that never a noble thing was said or done, within his hearing or sight, that there was not response in him. And so there are half a thousand poems in the volume published a year ago, of varying value, but all revealing the high sensitiveness of his soul and the fidelity of its expression to eternal truth and beauty.

"On this day Browning died?" he began one of his poems. "Say, rather," he added, "a soul of beauty,—a white, rhythmic flame,—passed singing forth into eternal beauty whence it came." This is what we now say to ourselves of the poet and friend who went singing from our sight last night.



BRIAND, THE FIRST SOCIALIST PREMIER IN HISTORY.

BY ANDRE TRIDON.

FUN-LOVING as they may be, Frenchmen have always missed one of the great American thrills: waiting through a feverish evening for the local returns of a presidential election. When "*The Name*" is known, they never break into violent cheering nor blow horns. They keep their seats at the cafés and go on sipping their coffee, their "sirop," or their "verte."

But whenever a ministerial crisis is "open," from Calais to Marseilles and from Cherbourg to Belfort, business is absolutely neglected. The most sedate bourgeois becomes of a sudden very extravagant with his heavy copper pennies, and buys all the "extras" put forth every half hour.

Look at a French newspaper. The President may have done startling things the day before; he may have uttered wonderful sayings; yet his day's doings will make up a five-line "filler" at the bottom of a column on the last page. On the other hand, excerpts from the day's debate in Parliament are starred on the first page, and, though French editors may be sparing of job type, they will feature in circus fashion every official or semi-official statement of the Premier.

The President plays in French affairs the rôle which devolves in well-bred families on a penniless grandfather. His opinion is respectfully solicited, but he is also expected to pronounce himself in favor of whatever the rest of the family have already decided upon.

The Premier is the general manager of the Republic, and this time the excitement incident to a change of management might have stirred France more deeply than on previous occasions. For the first time in history since Pericles' age a Socialist has been invited to manage a nation.

The Radicals, who for some twelve years controlled the political life of the Republic, seem to have failed to deal satisfactorily with the perplexing labor problem.

Clémenceau's cabinet did not fall on July 20. It fell months before when the postal employees discovered that they had nothing to expect from Minister Symian. And those who venture the assertion that Clémenceau

knowingly "fired suicidal sentences at himself" in order to be done with the worry under which he had labored for a year, may not be altogether wrong.

The greatest Radical since Waldeck-Rousseau being unequal to the task, President Fallières, after conferring with all the political leaders, decided to offer the premiership to A. Briand. Such a choice may cause surprise outside of France. Since the chariot of state was to be intrusted to a Socialist whip why not extend a call to one of those men whose names are more closely associated abroad with the idea of Socialist leadership? Why Briand instead of Jaurès or Millerand or Guesde or Viviani?

With all his encyclopedic knowledge of sociology and however versed he may be in Marxian lore, Guesde is a theorist and propagandist first and a parliamentarian afterward. His views on socialism are orthodox, but none of his friends would ever dream of letting him decide, should his party triumph, how the details of his creed were to be put into practice. Jaurès is a fascinating stylist and knows well how to lull a charmed audience into agreeing with him. But "Jaurès' days" are only literary events in Parliament, spells of political relaxation. Millerand has been a secondary figure ever since the cabinet with which he was associated fell and Viviani is still "in the make." France needed a different type of a man.

Some ten years ago the writer, then a "cub" reporter on one of the Paris papers was, through the courtesy of an influential friend, given a seat and a cover at a semi-political luncheon, three or four chairs away from a gentleman whose name meant nothing in particular, whose face was rather commonplace, whose sober talk and modest demeanor could in no way attract attention. The only thing the writer remembers is that some letter was to be sent to some society on behalf of a Radical group and everybody assumed that the wording of it ought to be left to the nobody three chairs away, Briand by name. To the query: "Who is M. Briand?" came the reply: "Oh, some lawyer. . . ."

The ministerial crisis which made Briand Premier of France opened on July 20 last at 8 P.M. On July 23 a few minutes before midnight a list of fifteen members of the new cabinet was signed by the President of the Republic. In three days a "new man" had succeeded in gathering around himself such a homogeneous governmental group that the political thermometer which indicates most accurately a nation's fever or depressed heart action, the Stock Exchange, did not register a fluctuation of half a point. This fact, much more than the vote which followed the ministerial declaration at the tribune, demonstrated the confidence of the nation in the man chosen.

Briand's private life is of an almost austere simplicity. A bachelor of quiet tastes he has remained untouched by the personal form of gossip in which certain Parisian publications indulge concerning men of the day. Briand's appearance would excite absolutely no comment anywhere from San Francisco to St. Petersburg. His is an "anonymous" face and an outwardly anonymous personality. Well poised and deliberate as he is, he has one violent dislike: he loathes sensationalism in every form.

A fluent speaker gifted with a remarkable voice, he has the most absolute contempt for oratorical success. A lawyer and a scientist he systematically avoids legal and scientific terms, and never uses a turn of phrase which could leave the most superficial listener in doubt as to his meaning. He is frankness incarnate in his explanations. He has no use for "style"; his are clear sentences, plain homely words. A great reader of the classics, he never resorts to quotations. A poet, he never indulges in any flight of imagination.

Taking his mandate with uncommon seriousness, he never avails himself of the weapon of humor against an adversary. Unlike Clémenceau, who laughed many cabinets out of power, Briand never tries to crush his opponents. He quietly, slowly, silences them, and whatever invectives may be hurled at him, though many interruptions may make his task harder, he never loses his self-control, never raises his forceful, far-carrying, harmonious voice and he handles his enemy in truly Chesterfieldian manner. He gives in brief the impression of a dynamo running quietly, smoothly, noiselessly.

Such a man does not strike the public fancy as quickly as would a more picturesque though shallower personality. It was not until 1902 that Briand was sent to Parlia-

ment by the miners of the Saint Etienne coal fields, and it was not until very recently that the "Separation" debates gave him a chance to apply his gifts as a parliamentarian and a diplomat.

Catholics were smarting under the conflict of their duties to the Vatican and their duties to the French law. Every step the government took was misinterpreted by the press of the opposition. Traps were laid continuously under the feet of the Minister of Public Worship, and when we read day by day the history of those troublous times as photographed by the reports of the debates in Parliament, we cannot but admire the man who, without uttering an angry word, without inflicting a wound, without departing from the language of a diplomat, succeeded in making the Separation law so acceptable to the large majority that the following elections sent back to Parliament every one of the deputies who had voted for the law.

After M. Combe's brutal declarations, Briand's suavity and unimpeachable courtesy won for the new régime the sympathy of many Catholics. His position was most trying at times, for, with hasty Catholics on one side and intolerant "free thinkers" on the other, pandemonium threatened several times to break loose in Parliament and in the country at large.

Briand is in politics what Pasteur was in scientific research, an unassuming worker who never cares for popular applause, but goes on doing his work in silence. Briand is a constructive Socialist who, however he may love his ideas, knows that changes must be brought about gradually and not without much experimenting. He knows that experiments must not wreck the laboratory nor kill the chemist, and more than once he has repeated at the tribune that: "Reforms cannot be carried out by violence. . . . Reforms are not fruitful unless they are carried out in a country prosperous and peaceful. . . . Private or collective interests shall not prevail against national interests." Briand wants Socialism, but the kind of Socialism that can be put on a business basis.

However ungrateful the task of a prophet may be, we can, in the light of the preceding, venture a forecast of what the Briand ministry will accomplish.

First of all, it may be said that unless all the signs fail it will be of long duration. In the selection of his associates Briand has succeeded in eliminating many elements of weakness which endangered



M. ARISTIDE BRIAND, PREMIER OF THE FRENCH REPUBLIC.

or cut short the life of preceding cabinets.

In the opinion of many Frenchmen it was an unfortunate coincidence that the decline of the French navy during the last decade should have synchronized with a continuous period of civilian administration in the Rue Royale. By selecting as heads of the army and navy a general and an admiral without any political records, Briand shows his intention of keeping the national defense out of the political field. He will in this way elude

all the criticisms the navy may incur in the future, and will prevent all military debates from involving the totality of his cabinet.

In matters international Briand has always been extremely reticent, but the retention of M. Pichon at the Ministry of Foreign Affairs indicates that Clémenceau's policy is to be followed by the new cabinet. That policy is slightly broader than Delcassé's and corresponds more closely to a slightly changed situation in Europe. Delcassé's efforts to isolate

Germany need not be carried out any further. At Algieras William II. saw every nation but Austria indorse France's attitude, and as a test of strength that was amply sufficient. Briand holds, with Clémenceau, that France must be as friendly toward Germany as toward any other nation, while maintaining her entente with Russia and England as a counterweight to the Triple Alliance.

A dangerous breaker on which Clémenceau almost wrecked his ship was the postal strike. Clémenceau handled that emergency rather awkwardly; in the first place, when he refused to depose Symian who, by his snobbish behavior had incurred the dislike of all his subordinates, and in the second place by dealing too harshly with the ringleaders. Millerand, a man in deep sympathy with the working classes, and who during his ministry forced the adoption of many methods which endeared him to labor, replaces Symian, and he has decided to take back the "culprits" one by one as vacancies occur.

This does not mean that Briand will surrender to the syndicates. An advocate of the right to strike, Briand does not intend to give up his theory "that private interests shall not prevail against national interests." While a strike of coal miners is purely a matter between the strikers and the mine owners, an incident like the postal strike affects the whole nation and means a distinct loss to every citizen without distinction. Briand, however, believes that government employees must be granted the right of forming associations for the defense of their professional interests, but that at the same time the brutal processes of a strike must give way to some more scientific method of obtaining satisfaction or redress. Therefore a bill regulating the status of government employees will be passed as soon as possible making that class of employees dependent upon the nation rather than upon the government.

Another popular reform which Briand will introduce, with the help of the third Socialist member of the cabinet, M. Viviani, is a system of social insurance extending to all classes of workmen and modeled on German patterns, and old age pensions for workmen and agricultural laborers.

The Caillaux income tax bill will be presented to the Chamber in the form ex-Minister Caillaux drafted it. In fact, a sub-Secretaryship of State has been created with Caillaux's former secretary at its head to emphasize the importance given to this bill, so

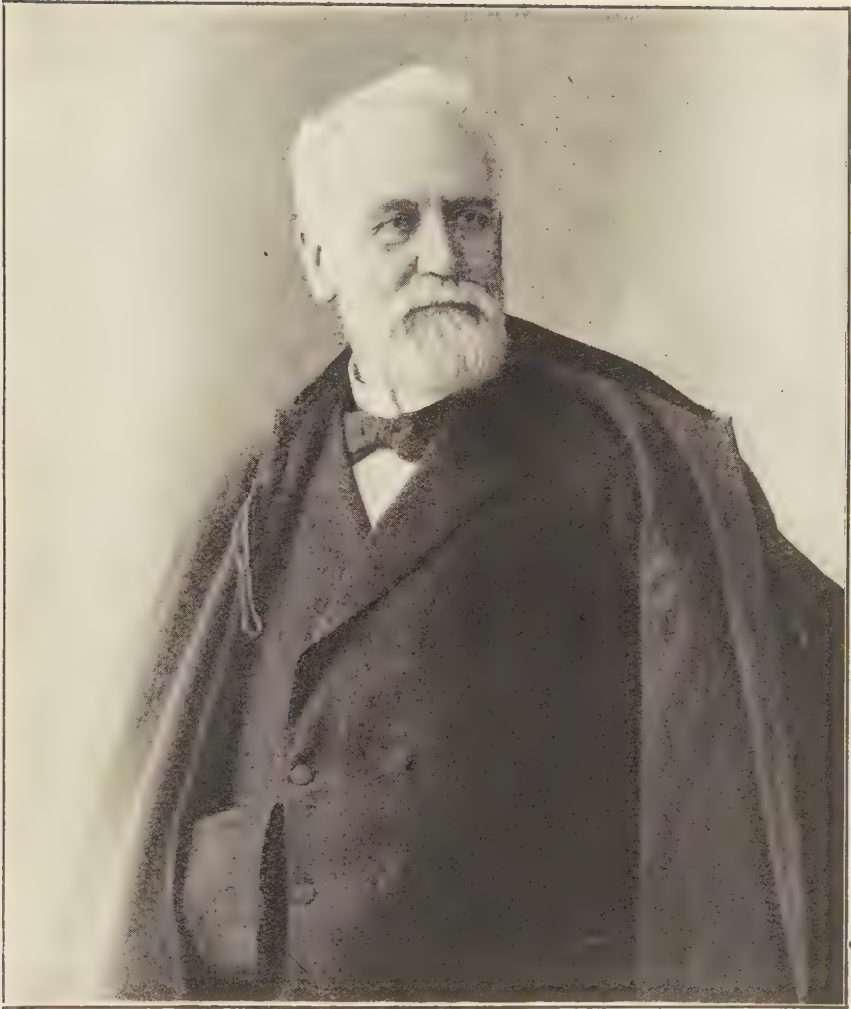
that the nation's finances will be taken care of by two members of the cabinet. M. Cochery, the new Minister, will only introduce slight changes making the application of the income tax easier and simpler.

A very popular bill on proportional representation will be laid before the Deputies during the next session. The Radical groups tried to have the bill voted on before Parliament adjourned for the summer, but Briand, with his usual tact, preferred to wait until after the general elections.

On every point of the program the cabinet can count on the support of the Radical, Radical-Socialist and Socialist groups, although on matters of general policy Guesde and the unified Socialists will either abstain from voting or vote against the government, for that unpractical group asserts that no Socialist should hold office in an unpartisan cabinet. Besides the Radical-Socialist and the Radicals, the moderate Republicans, with their powerful mouthpiece, the *Temps*, have promised to support the government program.

Briand was fortunate in securing the co-operation of Senator Dupuy, who accepted the portfolio of Commerce. Dupuy is a very popular figure in France and wields an enormous influence through the ownership of the most widely read French daily, *Le Petit Parisien*. Dupuy is also president of the Paris Press Association, and the power of the press, which, in France is less subservient to commercial considerations, is something with which a cabinet must reckon.

The difference between the Clémenceau cabinet and the Briand cabinet will only be observed in the method, for the material difference between a Radical and a Socialist in France is very trifling. Radical and Socialist platforms are almost similar, the line of cleavage being the Socialist demand of national ownership of the means of production and distribution. As Briand, however, is opposed to all measures which would destroy the country's peace and jeopardize its prosperity, and as he is enough of a financier to realize that the gradual purchase by the nation of the means of production and distribution will take many years if the financial equilibrium is to be preserved, we can confidently look forward to an era of tranquillity in France during which relations between large capital, small capital and labor will be adjusted as well as possible by men having the interests of labor at heart but clear-minded enough to see to it that national interests are safeguarded.



GENERAL O. O. HOWARD.

[The death of Gen. Oliver O. Howard on October 26, at the age of seventy-nine, removed the last surviving commander of an independent army in the Civil War. With the exception of Gen. Daniel E. Sickles, all the other corps commanders of that war have also passed away. General Howard, who was a native of Maine, had been graduated from West Point, fourth in his class, seven years before the war broke out, after the unusual experience of having completed a course at a literary college (Bowdoin) before admission to the Military Academy. Resigning his commission in the regular service at the beginning of the war he rapidly rose to important commands in the volunteer army, took part in the battles of Bull Run, Fair Oaks (where he lost an arm), Antietam, Fredericksburg, Chancellorsville, Gettysburg, Missionary Ridge, Atlanta, and Sherman's March to the Sea. He succeeded McPherson as commander of the Army of the Tennessee. At Gettysburg General Howard commanded the Eleventh Corps, and for his services in holding Cemetery Hill received the thanks of Congress and a letter of praise from President Lincoln. After the war General Howard was made the head of the Freedmen's Bureau, and for several years, while in command of the Department of the Columbia, saw much Indian fighting. After his retirement, in 1894, he labored zealously to secure an endowment for Lincoln Memorial University, at Cumberland Gap, Tenn. As a public speaker he was in demand everywhere, and was active in religious and philanthropic movements all his life.]



JANE ADDAMS—INTERPRETER.

AN APPRECIATION BY GRAHAM TAYLOR.

TO those who look upon her from without, Miss Addams may be social democrat, peace-maker, citizen, philanthropist,—either one or all in one. But to each of the inner circle of her friends, whose lives have been enriched and the horizon of whose vision has been enlarged and enlightened by her friendship, she is Interpreter. It is not so much by what she says, or even by what she thinks, as by what she is that she herself is recognized to be an interpretation of life. And the charm and reality of it all is in the fact that both she and you are alike unconscious of any interpreter's presence, and that both are conscious only of trying to learn the meaning of life.

A crippled old man who had been long isolated from the neighborhood life in the

densely populated district around Hull House was asked if he knew many of his neighbors. "Very few now," he replied, "but Miss Addams knows me," he added. "You know she lives here with us and she always seems to be more conscious of every one else who lives around here than she is of herself."

That sense of identification with others,—with the group, the class, the race-life, quite as much as with each one constituting it,—is the open secret not only of her influence with others but of her capacity to interpret them to herself and to each other. She not only has this sense of being identified with others, but she also gives others the sense of being identified with her.

This constitutes her democracy and makes her its most prophetic interpreter. For she is the thing she interprets,—and she interprets it by being it. Moreover, it was her birthright, which she made her own. She is her father's daughter and he was a friend and fellow-worker with Abraham Lincoln in the struggle to share and spread the freedom of their prairie State. She was her father's companion, and together they kept company with the spirit and thought of Joseph Mazzini,—prophet and martyr of democracy.

Identified at first with the cultivated and resourceful people of the State, her first problem was to interpret to herself and her college mates the freest form for the best self-expression. She discovered by experience and confirmed by observation the fact that the year after graduation is the most restless, discontented, and critical year of college women's lives. And it was to give natural expression to the truest self,—her own and theirs,—that she led the way (through Hull House) to a fairer share of the race-life than any class-life can give. By taking her own conscious need as the point of departure in her quest of her own and others' part and lot in the common life, she emphasized the fact that those who have nothing to get from others have nothing to give that others think is worth receiving. And no one could rate more highly than she what she receives from others above what she gives to them. Thus, from girlhood, democracy has been her social ethics, both the rootage and fruitage of all that is best and highest in human life and culture, and no American more than she has better exemplified and interpreted it as such. In the final estimate, what she has done to reattach to their rightful part and lot in the life of the community the classes isolated by the conditions of their labor or

their poverty may not prove to be a greater service than what she has done to help the financially and socially resourceful classes out of their detached class-life into the struggle to make good their claim to a name and place among all their fellowmen.

Nowhere in America more than at her "Interpreter's House" have the democratic poor and rich met, mingled, and exchanged values in those frank, free, reciprocities which spontaneously arise wherever she is. Interpreter of democracy Jane Addams is recognized to be wherever it is loved or feared, studied or shunned, served or repressed.

In being such she has mediated peace. And again she does it by identifying herself with those who differ. The breadth of her sympathy and the comprehensiveness of her intelligence have thus been put to the severest test. Although to the American manor born, no one of her cosmopolitan neighbors knows better than she what it is to be a stranger in this strange land. Indeed the immigrant mother, youth, or lonesome laborer could neither interpret self to others nor discover the new-country self to the old-country selfhood half so truly and fully as she. In the full-orbed consciousness of what lies between their past and this present, and of every step of the way they have taken to be where they are, Miss Addams never hesitates to step in between the race antipathies, to call a halt on persecution, and to interpose interpretation between the blind execution of law and the injustice threatened thereby. What to others less informed or more uncertain of the right would be foolhardy bravado in times of popular prejudice, when almost all are against one, has proved to be only wise and just as she has done it. But she never seems to think of it as being brave or anything that others ought not of course to do. In so doing, however, her loyalty to law never falters. She never sacrifices the whole community to any part of it. Her advocacy is never partisanship nor special pleading. She is always identified with the whole democracy in her peace-making. So it has proved to be when friends have feared and foes have decried the lonely stand she has firmly taken against the extradition of some friendless refugee, or in behalf of some race suffering persecution because of one or more of its misguided or unworthy representatives, or in between the cleaving, clashing lines of our own industrial classes.

Her mediation in industrial strife has been most effective just when and where it has



HULL HOUSE, CHICAGO, THE MOST COMPLETE "SETTLEMENT" PLANT IN THE WORLD.

(Miss Addams, with Miss Ellen Gates Starr, organized the settlement in 1889, in the rooms of the old Hull mansion.)

been most persistently misunderstood and misinterpreted. Here, too, her attitude is based upon an identification with the real and abiding interests of both sides, which is so fundamental as to prevent her from satisfying the demands of the partisans on either side of the temporary issue. In these times that try men's souls, her spirit is to be tried by what has proved to be best in the long run, rather than by what the self-seeking or the timid claimed as the only thing to be done at the moment of passion or indecision. Thus judged, her "Newer Ideals of Peace" stand approved not only by what ought to be in the saner future, but quite as much by what has and what has not transpired in the distracted and distraught past. The strain of Quaker blood running in her veins will yet be analyzed to be only the one, red, racial blood of which "God made all nations of men for to dwell on all the face of the earth." How far a drop or two of that "one blood" goes to make innocuous the virus of class-conscious bitterness may be measured by a single word descriptive of Miss Addams' peace-making interpretation. An overborne "sweated" garment-worker felt that as no one cared for her or for her invalid mother she and her fellow-crafts women could care for themselves only by uniting against the whole class of employers. Just as she had in desperation been driven to this bitter conclusion she was invited to dine and confer with Miss Addams at Hull House. At first she felt disposed to resent the invitation as "another attempt to patronize and disarm the working class." But risking the suspected indignity, she was at once undeceived by the simple, genuine welcome she received on arrival, which turned a hardened heart into fallow soil for the seed-word to be sown. "Can we not do something with you to help the women of your craft help themselves?" she was asked. "Had Miss Addams proposed to do something 'for' us," she afterward declared to another, "I would have resented it, because I want to do for myself. But when Jane Addams asked to do some-

thing with us, it was that little word 'with' that took the bitterness out of my life and led me to work with every one for the common good."

Talismanic is that word "with" as the touchstone of the modern philanthropy, distinguishing it from the outgrown charity which grew apart from justice. And yet Miss Addams' historical perspective is too broad and her insight into human life is too sane ever to allow her to share the Socialists' fallacy in proposing justice as an adequate substitute for all charity. The public and private charities of Illinois and of America have had no wiser and more ardent promoter than she. Her election to the presidency of the National Conference of Charities and Correction last June, as the first woman to be chosen to preside over this greatest of our "ecumenical councils," was not only a long deferred tribute to woman's leadership in philanthropy, but a well deserved personal tribute to her as the "first among her equals." No one among us all has done more to make over the charity of yesterday into the justice of to-day, and none more than she believes in the charity of to-day as the justice of to-morrow.

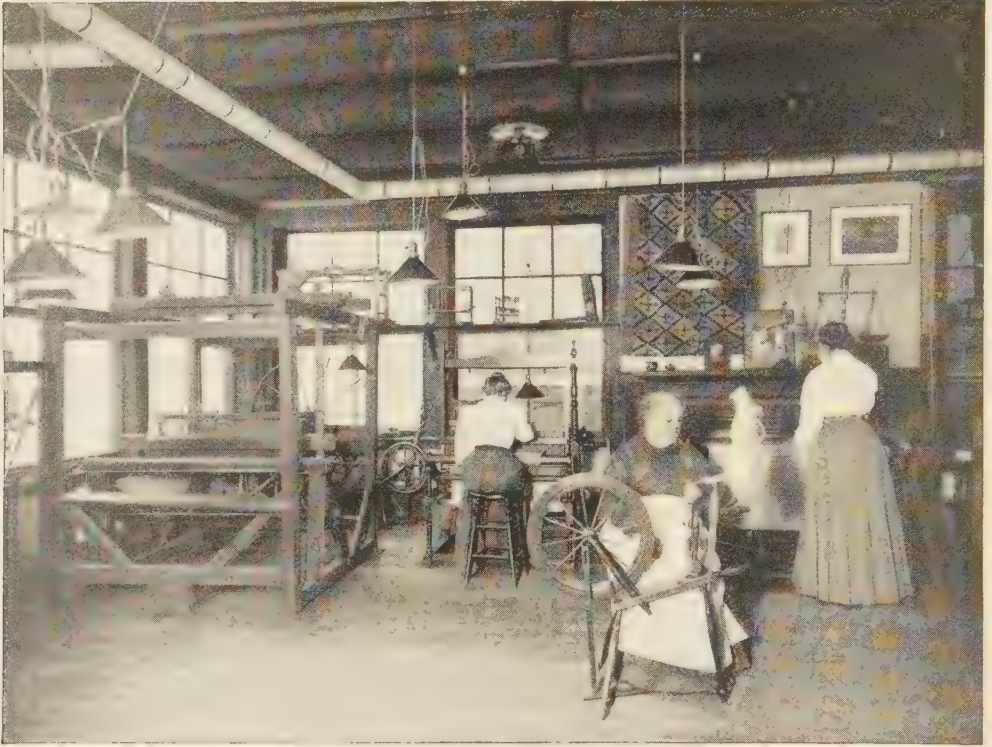
Personal independence of either the giving or the receiving class and personal identification with both have combined to constitute her the first citizen of Chicago, certainly the most widely and favorably known of all its present citizenship.

Of her pre-eminent qualifications to interpret and represent her town her last and most useful book, "*The Spirit of Youth and the City Streets*,"* is in evidence. The identifications it establishes between her own most human life and all the lives and city-wide interests which live and move and have their own true being in this little volume attest our claims of her interpreting power. Both in the title and contents of this volume Miss Addams has contributed a distinct addition to our knowledge and literature descriptive of the psychology of youth and of the conditions of city life. Originality in illustration and reasoning such as can be attained only through the insights of the most sympathetic experience appears on every page. And yet the volume deals with conditions so commonly observed and with experiences so obviously natural to growing youth that

* *The Spirit of Youth and the City Streets*. By Jane Addams. Macmillan. \$1.25.



A VIEW OF THE KITCHEN, HULL HOUSE, WHERE OLD-TIME IMPLEMENTS ARE KEPT.



A PARTIAL VIEW OF THE TEXTILE ROOM, HULL HOUSE.

the discussion seldom eludes either the attention or the grasp of the reader, however unaware he may have been of the acute situations described. At no point of her plea to consider the spirit of youth can any one escape the power and pathos of the argument against the toleration of conditions which brutally suppress the very nature of childhood and youth or of the argument for the free development and worthy direction of youthful ideals and energies, now so largely lost or forced into antagonism to social progress. Out of "the wrecked foundations of domesticity," the thwarted "quest for adventure," the ignored "house of dreams," a wistful, overconfident creature is pictured as walking through our streets and calling out "I am the spirit of Youth! With me all things are possible." And then those who hear and see this figure of the future are faced with these alternatives: "We may either smother the divine fire of youth or we may feed it. We may either stand stupidly staring as it sinks into a murky fire of crime and flares into the intermittent blaze of folly, or we may tend it into a lambent flame with power to make clean and bright our dingy city streets." This volume is

autobiographic without dreaming to be an autobiography,—just as her forthcoming "Twenty Years at Hull House" promises to be. For what she thinks is rooted in what she has experienced, and her experience is so linked with the lives of others as to be inseparable from their experiences. Thus she neither reasons nor idealizes without the suggestion and attestation of the facts of life,—her own and others. Story and theory, incident and principle, personal experience and civic ideal, intermingle in her pages as they do, or ought to, in life, which is always larger than logic. Democracy, peace-making, philanthropy, and citizenship all unite in an ethical insight which is the very spirit of religion and the soul of Jane Addams,—herself the interpretation of life in our urban and industrial age.

Miss Addams has literally built her interpretation of life into buildings, institutions, laws, and literature, and, more than all, into the individual and corporate life of her generation and city.

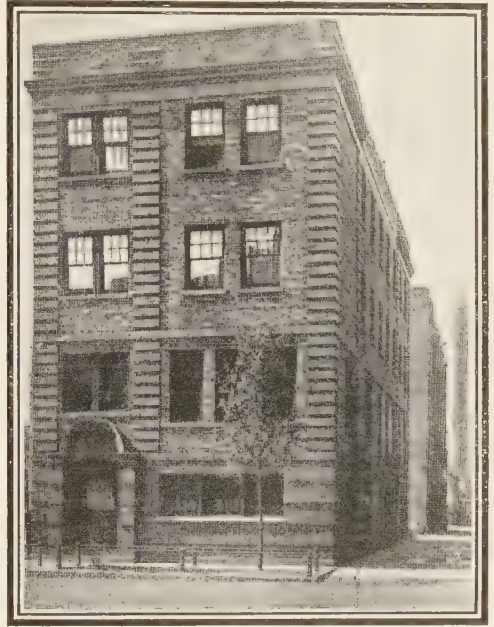
Conforming her convenience, living, and work at first to the stranded old mansion of the Hull family, which had become an immigrant tenement house, with the help of

those who shared her spirit,—foremost among whom the heir of the Hull estate came to be,—she transformed not only the homestead, but nearly the whole block surrounding it into "Hull House," the largest, most beautiful, and practically effective settlement plant in the world.

Across the street the chambers and detention home of the Juvenile Court of Cook County arose in response to the initiative given by a group of women among whom she was one, who, with the legal aid of two or three men, wrought their higher ideals of the treatment of delinquent and dependent children into the world's first and most typical juvenile court. The Juvenile Protective League followed in the same way, initiated, managed, and sustained by those thus associated in the Chicago Woman's Club. And so with many of the public and private institutions and agencies which have arisen or newly developed within the last twenty years in Chicago and Illinois, Miss Addams has been so identified that while, on the one hand, their history could scarcely be accounted for without her, on the other hand, she would be the last to claim that their origin and progress were due to her connection with them. It is the glory of her work that, notwithstanding the impression it bears of her strong individuality, it has always been done with others, and credited by her far more to them than to herself.

More far reaching and effective has been the influence she has exerted upon legislation than that which she has contributed to the building up of institutions. The laws for factory inspection, protection of immigrants, abolition of child labor, regulation of women's work, the establishment of juvenile courts, management of county and State charitable institutions, the building and control of tenement houses, and many other kindred enactments bear the impress of a group of women of whom she more nearly than any of the others was perhaps the central figure; although the leadership in this legislation is to be credited equally, and in some instances predominantly, to Mrs. Lucy B. Flower, Mrs. A. P. Stevens, Miss Julia C. Lathrop, Mrs. Florence Kelly, Miss Mary McDowell, and Miss S. B. Breckenridge, who with many others worked together for the common cause without thought of leading one another.

These efforts to improve conditions by legislation and her service in administrative positions, which range all the way from in-



THE JANE CLUB.

(This building was erected expressly for the use of a co-operative boarding club for young women which was organized in 1891. It contains bedroom space for thirty members, with a library, a living-room, and a dining-room large enough to use for social gatherings.)

specting the garbage collecting of her ward to membership in the Chicago Board of Education, have led Miss Addams to place increasing emphasis upon the extension of the suffrage to women, especially in municipal elections. Claiming that city government has come to be an extension of household economy and has long since ceased to be based upon the ability to bear arms, she contends that the housewife and the mother, the women workers and taxpayers have as much at stake to qualify them for the electorate as men can claim for "manhood suffrage."

Almost from the day she was graduated from Rockford College, for nearly twenty-five years she has devoted all she was and could become to this wide range of human service. With the simplicity of sustained sincerity, regardless alike of pecuniary emolument and the expenditure of her always overcrowded time and often frail strength, she has responded to the demands of almost every good cause for her winsome presence, persuasive speech and the contribution of her pen to the best social literature of our day. From coast to coast, in little towns and largest cities, in obscurest groups and on great-

test public occasions, at lake-front labor mass-meetings and university convocations, in small conferences and great gatherings of men where she has been the only woman to speak, as well as on all occasions on which her loyalty to womanhood was in requisition, multitudes of men, women, and children have caught the inspiration of her personal presence and been guided by her example and word to a higher life, a more effective co-operation, and to the larger world of her vision.

All through these years she has steadily contributed to the best periodical literature of the day, but not until seven years ago did her name appear under the title of a volume. In 1893, however, her chapters on "The Subjective Necessity for Social Settlements" and "The Objective Value of a Social Settlement" opened the brilliant symposium published under the title "Philanthropy and Social Progress." "Hull House Maps and Papers" followed in 1895, with the concluding paper by her on "The Settlement as a Factor in the Labor Movement." Her first book, "Democracy and Social Ethics," was published in 1902 in the series called the "Citizens' Library of Economics, Politics,

and Sociology." "Newer Ideals of Peace" appeared in the same series in 1907. While their general circulation attest the popularity of these volumes, the depth of their ethical insight, the reach of their ideals, and a certain subtlety of style and spiritual analysis invest them with a charm to the critical reader. "The Spirit of Youth and the City Streets" and the forthcoming volume, "Twenty Years at Hull House," are certain to increase the personal influence and permanent value of her authorship.

Thinking her own way through to the public profession of the Christian faith and membership in the Congregational Church in her early womanhood, Miss Addams has never ceased to be a student of the experience and philosophy of religion and to love the fellowship of the closest followers of Christ. Her devotion to such saints as Francis of Assisi and Leo Tolstoi is not greater than her reverence for the humblest neighbor who in tenement house home, in shop or store, amid the storm and stress of industrial and urban life, lives out and loves in the common faith in Father God and fellow men.



RECEPTION HALL, HULL HOUSE.

MRS. BARNETT AND HER WORK FOR SOCIAL REFORM IN LONDON.

EVER since she came as a bride of twenty-one to St. Jude's Vicarage, Whitechapel, Mrs. Henrietta Octavia Barnett, wife of Canon Barnett, has been actively identified with social reform work in and about the British metropolis. From 1873 to 1906, in Whitechapel, sometimes at Bristol and at Westminster, and now most of all at Hampstead, she has been constantly in evidence, a motherly woman who, having no children of her own, had adopted everybody within reach as foster sons and daughters. The wife of a church dignitary, entirely free from the taint of ecclesiasticism, joint-founder of the original university settlement, who is not in the least a prig, Mrs. Barnett has spent the best part of her life in everybody's service. The strange thing is that she has not worn out the physical vehicle which has had to carry so long her eager and impetuous soul. Mrs. Barnett was born in 1851, but she has preserved unimpaired to the present day her physical vigor and her keen interest in the welfare and the movement of the world.

Although she has at times traveled far afield, visiting India, China, Japan, Russia, and the United States, Mrs. Barnett's life work has centered itself first in Whitechapel and afterward in Hampstead, from which the influence of her teachings and the inspiration of her example have gone out over the civilized world.

HUSBAND AND WIFE.

It is difficult to write about Mrs. Barnett without saying something about her husband. For the Barnetts, like the Brownings, are inseparable in the mind of those who know them. They are not two, but one; it is impossible even to conceive of one without the



MRS. BARNETT.

(Whose position of leadership in the English settlement work was for years not unlike that of Miss Addams in America.)

other. In being equally yoked together the Barnetts resemble the Booths. But Mrs. Booth died many years ago, and General Booth stands alone. Canon Barnett does not stand alone,—he has never stood alone. If in the early days he was rather more visible and audible to all men, of late years Mrs. Barnett has been brought more before the public. But they have lived together, toiled together, written books together, traveled together. It is difficult to point to any

one phase of the multifarious activity of their blended lives and say that here or there either worked alone. It is true that the female ministry not yet being recognized in the Anglican Church, Canon Barnett has had a monopoly of the pulpit. But who knows how much of the inspiration of his sermons he owes to the guardian angel of his home?

A PREACHER OF RIGHTEOUSNESS.

The Barnetts have been for a generation among the most strenuous, the most conspicuous, and the most useful apostles of practical Christianity in modern England. Canon Barnett may be regarded as the man upon whom the mantle of Charles Kingsley has fallen. He is emphatically a Broad Churchman of the school of Jowett, who ignores religious differences and goes about doing good. He has ever been a voice crying in the wilderness, "Prepare ye the way of the Lord; make his paths straight." To the ecclesiasticism, the ritual, the dogmas of the Church in which he was ordained a minister he has never seemed to attach much importance. He has been a preacher of righteousness. He proclaimed to all men the need for the resurrection of the buried life. He tells men:

There is within you a buried life, which does not get free. In old days it got free through old forms of religion, and then men had peace, and were not afraid of anybody or anything. We cannot go back to the old forms,—they are gone with the old times, and in presence of the new learning of our days.

HIS MESSAGE.

What then must we do? We live in a transition stage. The old creeds have lost their hold. The new awakening word of Christ has yet to be spoken. East London, he said long ago, needs with a need beyond all other needs a revivifying of the relation which exists between man and God. But with all its searching it finds not God. It is even in some things drifting away from God. There may be more sobriety, but there is less reverence. More churchgoing, but also more gambling. What is the Canon's message to the men of this generation? It is the message of John the Baptist addressing a new world with the old direction, "Be more sober, be cleaner. Live purer lives. Give your votes thoughtfully. Make your city healthier and more seemly." And the keynote of all his teaching has been the demand for personal service. Self-giving rather than money-giving is the duty of man. "Many

have been the schemes of reform I have known," he says, "but none touches the root of the evil which does not bring helper and helped into friendly relations."

When Canon Barnett was appointed to Whitechapel, the Bishop of London, in making the presentation, described St. Jude's as the worst charge in his diocese. Canon Barnett's work in Whitechapel was largely associated with three things,—education, relief, and housing reform; but he is best known as the first warden of Toynbee Hall and the pioneer of the university settlements all round the world.

At Bristol and at Westminster he has ever been faithful to the ideal of the uncompromising preacher of the wilderness. When Canon of Bristol his heart was stirred within by the selfish smug respectability of the Cathedral audience which basked in the delights of Cathedral services where children died like rotten sheep in the slums near by.

THE BARNETTS' SOCIAL GOSPEL.

From the recently published volume of their essays let us take the following succinct exposition of the social gospel which the Barnetts have preached and practiced ever since they went to the East End:

"The best for the lowest" is not the precept always held in repute by those who build churches or plan amusements for "East Ends," but it is that acted on by the greatest of social reformers. The dock laborer can admire pictures and fine music. The hooligan has power of adventure and dreams of heroism. . . . Our suggestions follow, therefore, the line of putting the best within everyone's reach. We would lay open the way to the employment of beauty, of art, and of travel. We would nationalize luxury, and give to every one the high thing which he does not want. But with our belief in human nature we believe also in the power of human environment over character. Suggestions toward social reform must, therefore, take account of laws and customs. Laws which once helped now hinder. . . . We advocate, therefore, changes which will substitute garden suburbs instead of slums, consideration for the poor instead of punishment, and such an extension of university influence that every worker may have a wider outlook on life. We would in a word limit state action wherever it interferes with the growth of manhood and womanhood in the nation, and enlarge its actions wherever it could assist that growth.

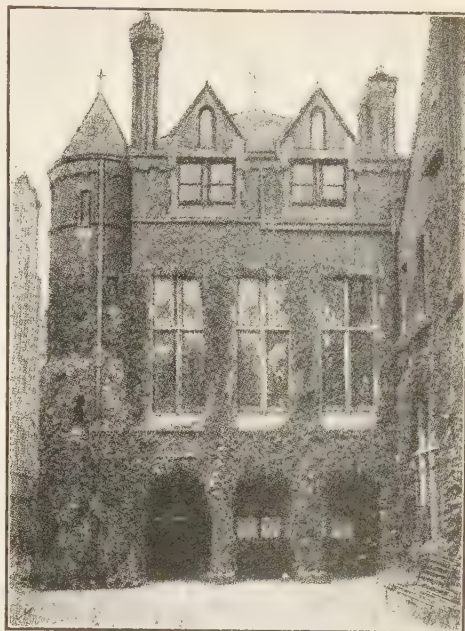
FACTS IN MRS. BARNETT'S LIFE.

This is not a biography of either of these notable pioneers. But some facts and dates in Mrs. Barnett's life may not be out of place. She was only twenty-one when as a bride she went to St. Jude's, with her hus-

band, then twenty-nine years old, on his taking charge of the parish. She soon was immersed in parish work. Her first public appointment came in 1875, when she was appointed a manager of the great barrack pauper schools at Forest Gate, a post which she filled until 1897. In 1878 Mrs. Barnett inaugurated an important piece of work by sending nine poor children for a stay in the country,—since developed into the Children's Country Holiday Movement, dealing annually with tens of thousands of boys and girls. In 1884 Mrs. Barnett founded the London Pupil Teachers' Association, which has created a powerful influence among the girl teachers of the metropolis; and from 1891 until the society was absorbed by the London County Council she was its president. Between 1876 and 1898 she was honorary secretary of the Whitechapel branch of the Metropolitan Association for Befriending Young Servants,—familiarily known as the M. A. B. Y. S.; she promoted homes for workhouse girls, and is vice-president of the National Association for the Welfare of the Feeble-minded; and was a member of the Poor-Law School-Children's Departmental Committee, 1894-96.

THE FOUNDING OF TOYNBEE HALL.

The founding of Toynbee Hall dates from the year 1883. In that year some Cambridge men expressed a desire to do some work in a poor district; they were not desirous of associating with the ordinary type of college mission, and Mr. Barnett was asked to suggest a better way. The letter was received just as he was leaving London for Oxford, and was slipped, with others, into his pocket. But the story is best told in Mrs. Barnett's own words: "Soon something went wrong with the engine," she says, "and delayed the



WING OF THE LIBRARY BUILDING, TOYNBEE HALL.

train so long that the passengers were allowed to get out. We seated ourselves on the railway bank, and there he (Mr. Barnett) wrote a letter suggesting that men might have a house, where they could come for short or long periods, and, living in an industrial quarter, learn to 'sup sorrow with the poor.' The letter pointed out that close personal knowledge of individuals among the poor must precede wise legislation for remedying their needs, and that as English local government was based on the assumption of a leisured cultivated class, it was necessary to provide it artificially in those regions where the line of leisure was drawn just above sleeping hours, and where the education ended at thirteen years of age and with the three R's. That letter founded Toynbee Hall."

THE LIGHTHOUSE OF THE EAST END.

Of Toynbee Hall it is unnecessary to speak. Started originally as "an eye through which the university could see the East End of London," it became the precursor of a series of university settlements, which have been at least as much a means of grace to the settlers as to those among whom they settled. It has been a bright light in a dark place, and good men and women all over the world have kindled their lamps at this shrine.

Settlements, however, were never regarded



ONE OF A GROUP OF HOUSES IN WILLIFIELD WAY.



A DETACHED HOUSE IN MEADWAY, HAMPSTEAD GARDEN SUBURB.

by Mr. and Mrs. Barnett as other than a makeshift. Mr. Barnett said once: "Settlements really exist in order to compel attention to circumstances which ought to be swept away so as to render settlements unnecessary."

By way of practically illustrating the state

of things in which settlements would be unnecessary, Mrs. Barnett has devoted herself of late chiefly to the creation of the Hampstead Garden Suburb, of which more anon.

Mrs. Barnett has ever been an intrepid advocate of the humanities. The success of the Whitechapel Art Gallery, opened in



AN ENTRANCE FROM HAMPSTEAD WAY.



A GROUP OF HOUSES, HAMPSTEAD.

1901 by Lord Rosebery, was largely due to her exertions. But she has never been content with merely providing institutions for the service of the people. She has been sedulous in inculcating the need for the cultivation of the humanities in the home.

ON DOMESTIC SERVICE.

Writing on "The Servant as Citizen," Mrs. Barnett urged that domestic servants should be encouraged to attend political meetings and listen to lectures on local history. By this means they would take a long step toward the recognition of their rights as citizens. In the home—

A daily paper might be taken solely for the kitchen use, a bookshelf kept in the pantry,—the books chosen to suit low standards with powers of progression. The servant's individual tastes,—music, gardening, art, animal pets, or cycling,—and her personal convenience

should be studied, so that she could make her own plans and feel secure about her engagements. Labor-saving appliances must be provided and greater use made of temporary help, so that her hours of recreation should not be followed by the burden of extra work.

Mrs. Barnett finds that in this matter, as in others, godliness has the promise of the life that now is as well as that which is to come.

The two chief labors which now preoccupy the attention of Mrs. Barnett are the reform of the Poor law in relation

to children, and the realization of her cherished ideals in the Hampstead Garden Suburb.

THE HAMPSTEAD GARDEN SUBURB.

She began by saving for the public eighty acres of beautifully wooded land for the protection and enlargement of Hampstead Heath.

It cost £43,000 [\$215,000] to secure eighty acres of wooded parkland, but the advantage of this would have been largely lost but for the formation of the Hampstead Garden Suburb Trust, which, by an expenditure of £112,000, bought 240 acres more in order to lay it out so as to make the suburb a garden of beauty instead of a mere wilderness of bricks and mortar. It was Mrs. Barnett who started this project. She and her friends got together an investment of £76,000, formed a company under the chairmanship



A GROUP OF BUILDINGS IN THE MEADWAY



A COURT IN THE NEW GARDEN SUBURB.

of Lord Crewe, with Sir Robert Hunter on the directorate, and bearing the title the Hampstead Garden Suburb Trust, Limited (32, Theobald's Road, W. C.). A private act of Parliament was passed to give the board a freer hand, and she is now at work day by day, week by week, and month by month, making her dream come true.

A VISION OF THE SUBURB BEAUTIFUL.

This is Mrs. Barnett's program as she has outlined it:

In the Garden Suburb Estate it will be an essential condition of building that the dwellings of all classes be made attractive with their own distinctive attractions, as are the cottage and the manor house of the English village; the larger gardens of the rich helping to keep the air pure, and the sky view more liberal; the cottage gardens adding that cosy, generous element which ever follows the spade when affectionately and cunningly wielded as a man's recreation. The houses will not be put in uniform lines, nor in close relationship, built regardless of each other, or without consideration for picturesque appearance. Each one will be surrounded with its own garden, and every road will be planted with trees, and be not less than forty feet wide. Great care will be taken that houses shall not spoil each other's outlook, and that the noise of children shall be locally limited, while the avoidance of uniformity or of an institutional aspect will be obtained by the variety of the dwellings provided.

A community, however, consists not only of houses. For its higher life it will need houses of prayer, a library, schools, a lecture hall and club houses. For its physical well-being our community will need shops, baths, and wash-houses, bake-houses, refreshment rooms and arbors, co-operative stores, and agencies for the purpose of fostering interest in gardens and allotments, and the lending of tools which are beyond the means to purchase and unnecessary for every one individually to possess. Among the advantages of a community are the joint conveniences which proximity permits, and which enable economy to be practiced without undue effort.

It will need also playgrounds for the smaller children and resting places for the aged who could not walk so far as from the end of the estate to the Heath. There will be cottages with individual gardens, and cottages grouped round a quadrangle or common sward, used, perhaps, as a tennis court for teachers before the two-penny tube carries them to their work in London's center, and later for their young guests whose joy will be to "visit teacher" on Satur-



HOUSES IN TEMPLE FORTUNE LANE.

day afternoons and summer evenings. There will be the semi-detached two-storied houses, on the ground floor of which will dwell the family, with the man at its head who is ready and capable of working neatly and productively his tenth of an acre, and on the first floor the poor lady or working woman who takes no less a delight in flowers and grass plots because she cannot dig, and whose refining influence will help the children, while their mother will be glad to earn something by doing her domestic work.

There will be associated residences for young men whose common garden and creeper-draped balconies will doubtless be a common joy. There will be, I hope, the convalescent home, the co-operative rest house, the training school and the working lads' hostel,—for a community should bear the needy and the handicapped in daily mind. There will be the deep porched and broad-balconied tenements for the old, the single, and the wealthy, whose capacities and infirmities, while hindering action, do not hinder suffering from the noise, crowd, and dirt, nor the power to enjoy the kinder environment befitting their latter days.

ITS REALIZATION.

Toward the achievement of this ideal much has been done. Already houses have been erected on the estate valued at £250,000. Sites have been given by the board, of which Mr. Alfred Lyttleton is the president, for an Anglican Church, a Free Church and Institute, and an elementary school. Every cottage, villa, or house stands in its own garden. A charming group of buildings has been erected for the accommodation of ladies who have to earn their livelihood, while another part of the estate is being made beautiful by a quadrangle which is to house those who have approached the end of life and desire to rest in peaceful surroundings.

ALL DONE AT A PROFIT.

All this is done, and done at a profit, including the laying out of four miles of road planted with almond, cherry, acacia, maple, birch, and other ornamental trees, while hedgerows of sweetbriar, yew, holly, and wild rose have been provided in place of the ordinary fences. By far the greater portion of the land has been applied for at the scheduled rents. The ultimate total ground rent will not be much, if at all, short of £15,000 a year,—ample after payment of 4 per cent.

interest on the existing first mortgage of £40,000, 4 per cent. on the debenture stock, and 5 per cent. dividend on the share capital, and all current expenses, to allow of a large annual outlay on the upkeep of the open spaces and the general beautifying of the estate, and to leave a substantial margin for promoting public objects and enhancing the amenities of life for all the residents of this beautiful suburb.

Altogether a thriving, healthy-going concern that ought to be the parent for many other similar garden suburbs all over the world. But it wants more capital, just because it has been so rapidly successful. However, by its financial need it affords an opportunity of co-operation to those who own any capital, who have thought of the ethics of investment and who desire to know that their money is doing useful work, as well as earning 4 or 5 per cent.

And without Mrs. Barnett nothing of all this might have been done.

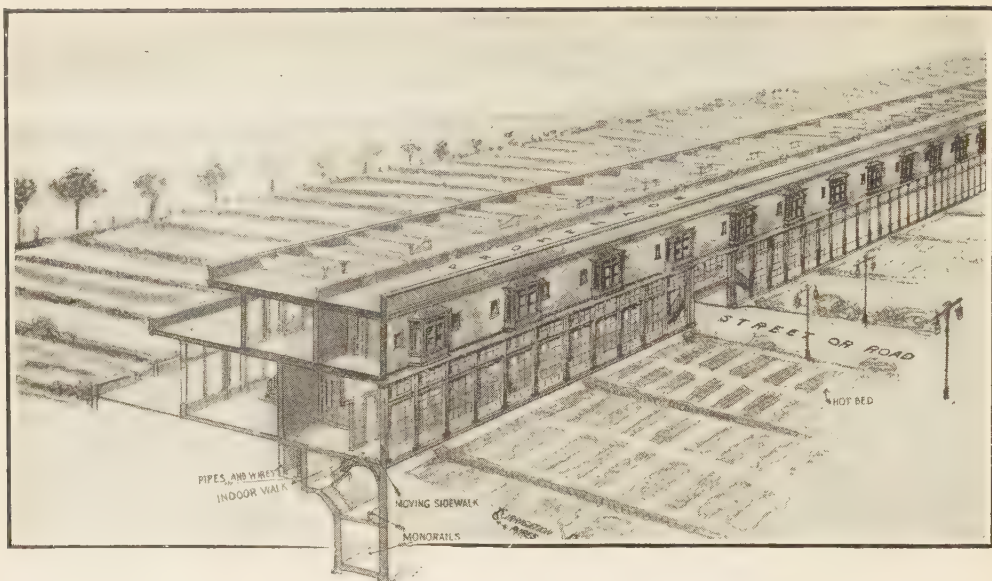
THE CHILDREN OF THE STATE.

The other great work to which Mrs. Barnett is devoting her unimpaired energies is the completion of the beneficent reform for which the State Children's Association has clamored so persistently and so long. She has censured the Local Government Board for allowing 20,000 of the children of the state to remain in the workhouses. Mrs. Barnett maintains that the transfer is urgently demanded alike by humanity and economy.

Between her and the President of the Local Government Board there occasionally rages the fierce war that breaks out between two public-spirited persons, each of whom is perfectly certain that the public weal would best be served if their ideas were carried out. With Mrs. Barnett are Lord Crewe, Lord Lytton, Sir Albert Spicer, and many other public men; with John Burns are the organized and entrenched forces of a great public department.

There are enlightened onlookers who predict that Mrs. Barnett will win in the long run.





A BIT OF THE PROJECTED "ROADTOWN," FROM THE ARCHITECT'S SKETCHES.

BUILDING HOUSES BY THE MILE.

"ROADTOWN," A NEW SYSTEM OF DWELLING CONSTRUCTION.

SCHEMES for the improvement of housing conditions are common enough, but few that have been proposed within recent years appeal to the interest of so many groups of our population as the so-called Roadtown, which has been devised by Mr. Edgar S. Chambless, of New York City. A distinctive feature of this plan is a combination of connected dwellings with a system of rapid transit, connecting with our present metropolitan systems, the whole to be developed in the suburbs of our great cities, forming, in fact, a projection of the city into the country. The invention of Mr. Chambless involves a systematic and efficient distribution of public utilities with a completeness that has heretofore been thought unattainable even in blocks of high-grade apartment houses, from which the masses of our metropolitan population are excluded by the high rentals.

It would be an anomaly to describe the Roadtown as a skyscraper laid on its side, and yet there are close analogies between the modern skyscraper and the proposed Roadtown. This continuous house will provide its tenants, just as the apartment-house now does, with water, heat, light, power, and transportation,—but for the latter a noise-

less railroad will take the place of an elevator. It is proposed to employ the Boyes monorail, as well as a moving sidewalk, and to provide for mechanical deliveries of all packages and parcels as well as for the transportation of passengers and food. Not only will an ideal combination of transportation service with house construction be secured by this plan but very marked economies will be effected in such matters as plumbing, wiring, and the use of cement. Mr. Thomas A. Edison has offered the use of his cement-poured house patents without royalty.

The inventor and the architects and engineers associated with him in working out the estimates of costs state that the savings in construction and maintenance will make it possible for a man to live in the country at the rent now paid for second-rate city apartments, and enjoy all the benefits of electric power, light, gas, heat, hot and cold water, sewerage, irrigation, vacuum for sweeping, power, mechanical refrigeration, telephone, and message and parcel delivery.

That large class of workers in our large cities who are now commuters will naturally utilize the Roadtown, since it will give them many of the advantages that they seek in the



ELEVATION SHOWING ONE SIDE OF ROADTOWN.

country, without depriving them of libraries, schools, churches, or theaters. To a greater or less extent the Roadtown commuter will be able to combine light farming work with labor at the city desk.

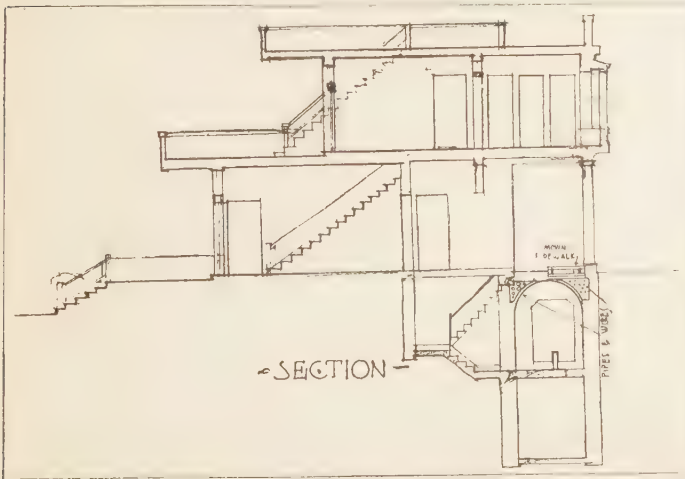
In the saving through the distribution of food supplies much is claimed for the Roadtown system. The purchase and preparation of food will be by wholesale, and meals will be ordered from serving centers conveniently located. It is proposed to make deliveries by means of special cars provided with warm and cold compartments directly to the dining-room of each individual home. The dishes will be returned to the serving station and kitchen drudgery will be practically abolished from the home. Not only will the Road-

town effect a great saving in the cost of living for individual families but the possibility of distributing power from one end of the structure to the other will make feasible the introduction of various industries requiring individual hand labor or the use of light machinery. Each house will be supplied with a motor, to which a machine of standard size may be readily attached. Among the industries that are likely to have a place in the homes of Roadtown will be knitting, lace and needle work, millinery, the making of artificial flowers, toilet articles, wood-working, toy-making, book-binding, and the "arts and crafts" in general.

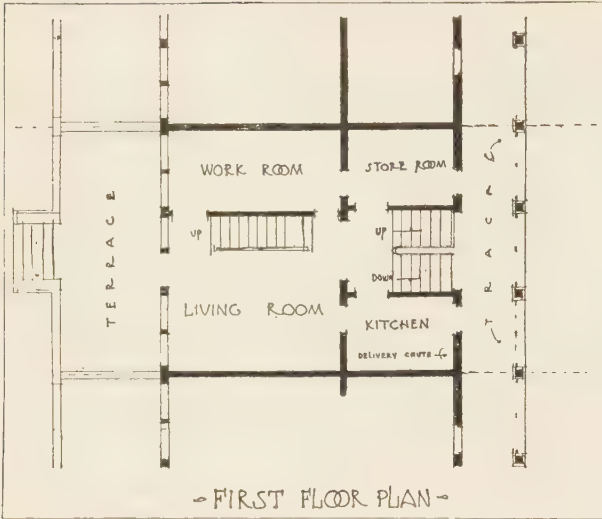
In the New England manufacturing towns of half a century ago families frequently com-

bined agriculture on a small scale with manufacturing. The growth of the modern factory system has practically done away with opportunities of that kind, but the Roadtown offers to bring them back.

In the Roadtown scheme it is always assumed that each house will have with it a reasonable amount of land for tillage. It does not follow, of course, that all these garden plots will be equally productive or available for profitable cultivation. In some in-



A CROSS-SECTIONAL VIEW OF ROADTOWN.



stances the Roadtown location might be admirable, so far as accessibility to a large city and general healthfulness are concerned, but quite unsatisfactory from an agricultural viewpoint. It would, indeed, be rare to find all the desired advantages combined in one location. In those places where there is an abundant supply of land suitable for tillage the Roadtown system would undertake to furnish water for irrigation purposes (if needed) as well as to provide facilities for transportation of all farm products. It is believed that there will be no great difficulty in securing sufficient land to support the 220 families per mile which will make up the Roadtown community.

Tenants will rent the land and machines for their homes or factories, buy their raw materials in the open market, and sell the fruits of their labor to the highest bidder.

The estimates of the cost of building and equipping a mile of Roadtown, as prepared by the engineers, show a total of \$833,200. This estimate includes wiring, heating, plumbing, laundry machinery, cooking apparatus, heating and refrigerating plants, electric plant and telephones, sewerage plant, water supply and mains for irrigation and domestic use, gas and vacuum producers and holders, moving sidewalk, and monorail. The cost of each house, including these various utilities, would thus be \$3787 for the first mile of construction, leaving the

value of the land entirely out of consideration.

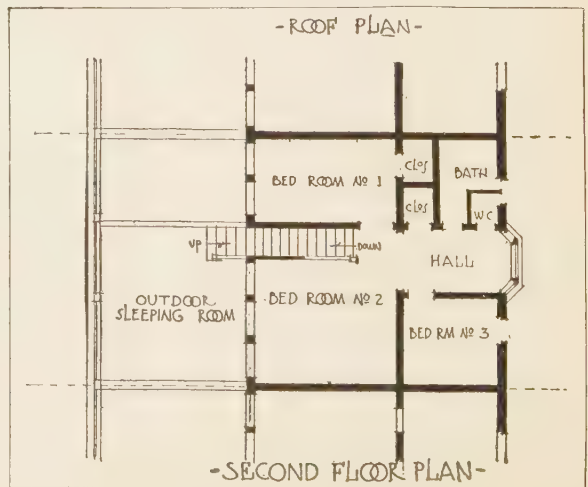
The principal fixed charges on the first mile for labor, coal, interest on the investment, and depreciation are estimated as follows:

Chief engineer.....	\$2,400
Two assistant engineers, \$80 per month.....	1,920
Four firemen, \$60 per month	2,880
Two extra men, \$50 per month	1,200
Chef, \$75 per month.....	900
Three cooks, \$40 per month	1,440
Three helpers, \$20 per month	720
Laundryman, \$100 per month	1,200
Ten women, \$20 per month.	2,400

Coal	\$13,060
Oil and waste.....	5,000
Interest, at 5 per cent., on \$833,200.....	41,660
2½ per cent. depreciation on equipment..	20,830

To these there must, of course, be added other fixed charges, such as insurance (which should be inexpensive, since the houses are to be built of cement and practically fireproof), taxes, and interest on land values.

These calculations are for the first completed mile of Roadtown equipment and maintenance. It will be readily seen that each added mile would be built at relatively smaller cost, and the engineers estimate that an addition of 500 or even 1000 houses would not make any material increase in the principal labor items, such as the pay of engineers, firemen, and heads of departments.

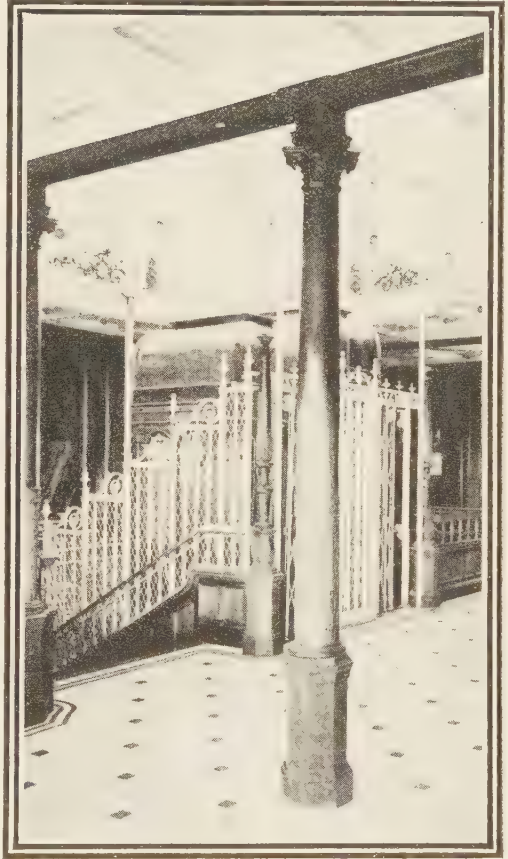


THE PROBLEM OF VERTICAL TRANSPORTATION.

BY HERBERT T. WADE.

IN the distribution and movement of the congested population of a great city, especially in its business centers, vertical transportation now plays a most conspicuous part; for not only has the elevator made possible the modern skyscraper but it is no less essential to the office, warehouse, loft, or apartment building of more modest height, and this convenience, now a necessity, is even supplied on our large ocean liners to facilitate travel from deck to deck of these floating hotels. The conduct and maintenance of the elevator figure so largely under modern city conditions that the peculiar nature and problems of vertical transportation are of no small degree of interest. It has been estimated that the various elevators in the buildings of New York daily carry some six millions of passengers, or almost twice as many as the various traction companies, and, while this work is widely distributed, yet the volume of traffic, if not the actual mileage, makes a most interesting transportation problem, which parallels quite closely that of the ordinary railway.

To-day the subject is of special interest in that in the highest office building of the world passengers are transported directly in a single car to the forty-fourth story, or a distance of 586 feet, and the elevator engineers have not only reached a height that only a few years ago was deemed all but impossible, but they inform us that a type of elevator has been successfully developed that will serve for any height of structure that the architect will essay. In fact, it is obviously the elevator and the steel skeleton construction, introduced about 1893, that has altered the face of the great cities of the world, particularly those of America, and this has occurred within a comparatively brief space of time, for the passenger elevator dates back only to about 1870, when modifications of the machinery used for over twenty years previously primarily for freight in stores and warehouses began to be used for passenger lifts in large buildings. It did not require much foresight to see that vertical transportation not only made equally available the upper

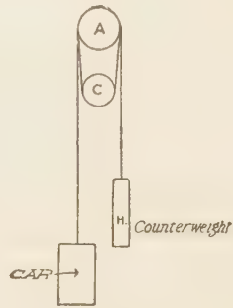


THE ELEVATOR ON SHIPBOARD. MAIN DECK ENTRANCE TO ELEVATOR ON CUNARD STEAMSHIP "MAURETANIA."

floors of commercial buildings and hotels, but that new structures could be raised to increased heights, and could be made correspondingly more remunerative.

From the modifications of the steam engines, used for hoists and freight elevators, gradually hydraulic machinery of great efficiency and reliability for passenger elevators was developed, and until the triumph of electricity these hydraulic machines held undisputed sway, even to-day being in wide and general use, having achieved a deserved reputation for ease and certainty of action. Such

machines are operated by admitting water under pressure to a cylinder through the agency of valves moved by the operator and allowing it to act on a piston which carries one or more pulleys or sheaves, causing its motion to be multiplied and communicated to a car. Various arrangements of sheaves and cylinders are employed, and from three or four stories the range of motion of the hydraulic elevator was increased so that by 1880 it was possible to erect buildings eight stories or more in height, and by 1893, when steel skeleton construction began, not only the requisite height of rise was secured, but a speed of operation amounting to a rate of 400 feet per minute or more was attained without difficulty.



PRINCIPLE OF TRAC-
TION ELEVATOR.

ELECTRICITY AS MOTIVE POWER.

With the beginning of the skyscraper epoch came the electric elevator, and with electricity, so generally available for light and power, it seemed to lend itself readily to the conditions of elevator engineering. What more simple than to gear an electric motor to a windlass and use it to haul a car up and down a shaft? So it seemed to the electrical engineers, and they immediately set to work to adapt suitable motors and means of control. The so-called drum type, where a drum or windlass was revolved by means of an electric motor geared to it, at once found wide application for light loads and where the high speeds and great capacity of a modern office building were not required. Conditions of operation and the mechanism rapidly changed and improved, so that soon electric elevators were used not only for express cars of heavy capacity in large commercial buildings but for a wide range of services, down to and including automatic small passenger elevators for private dwellings. But other devices besides the drum type were used with electricity, and one of these, the Sprague-Pratt machine, made use of a traveling nut in which a screw on the armature shaft revolved, but none were able to meet the demands of high speed and height of travel desired for recent tower buildings until the Otis electric-traction machine, which re-

cently has been installed in the Metropolitan and Singer tower buildings, where the highest rise cars in the world are operated. This system was found equally applicable in the Hudson Terminal Buildings, where the largest elevator installation in the world, consisting of 37 such machines out of a total of 50 elevators of various kinds, is maintained to take care of the 10,000 or more persons housed in this great structure.

The traction principle is not only much the simplest but does away with the extra weight of cables and heavy moving parts, which amount to far more than the load to be moved, as it consists simply of a cable supporting a car and then after being passed around a driving sheave, A, on the armature shaft of a motor, and around an idler sheave, C, and finally attached to a counterweight at its opposite extremity. The counterweight is arranged to represent as closely as possible the average weight of the car and load, so that the function of the motor mounted at the top of the hatchway is simply to move in either direction the excess weight, the rest of the arrangement being in balance.

This is the type of machine used in the Metropolitan Tower, where there is maintained an express service from the ground to the tenth floor and then extending above to the forty-first floor in the case of four cars. A higher rise car runs from the basement to the forty-fourth floor, a distance of 586 feet $1\frac{1}{2}$ inches, which can be traveled in approximately a minute with a load of 3000 pounds, or about twenty passengers. Now, the Metropolitan Tower installation is naturally not only the most recent but an extreme example for a special type of building, yet the individual elevator equipment of a building must take into consideration just such questions as these. In fact, one of the first installations of traction elevators with motors mounted above the elevator shaft was placed in the high building at Broadway and Wall Street, New York, erected on a lot only 30 x 40 feet, where economy of space not only in the basement but in the hoistway rendered necessary machines occupying a minimum of room. This fact as well as the height of rise which is beyond the limits of plunger or hydraulic machines makes the direct traction machine probably the only one available at present in buildings over 500 feet in height, while at the same time they afford good general service under other conditions, as in the Hudson Terminal and Singer Buildings.

THE "PLUNGER" ELEVATOR.

For tall buildings, with the electric elevator must be considered also the plunger elevator, which, as an efficient piece of hydraulic machinery, has had a well merited vogue and has found application in buildings up to about 400 feet in height. In this machine the car is carried on the upper end of a plunger, which works in a cylinder carried in a deep well drilled in the ground. The admission of water under pressure causes the plunger to rise, and similarly the opening of valve, by means of the operator's lever, permitting the escape of the water, allows the plunger and car to descend. As in other elevators, both hydraulic and electric, the car is counter-balanced, and at the upper part of its journey depends no less for its safety on the integrity of its cables. Plunger elevators have been found easily operated, efficient, and economical both as regards maintenance and repairs; but for structures over 400 feet in height they are not available.

PROBLEMS OF PASSENGER SERVICE.

Now the provision of elevators for a large building is a very important problem for the owner and his engineers, as the conditions of traffic must be carefully studied. It is, of course, obvious that to make an office building, store, or hotel successful there must be adequate elevator service, and that tenants on the upper floors should be served as well

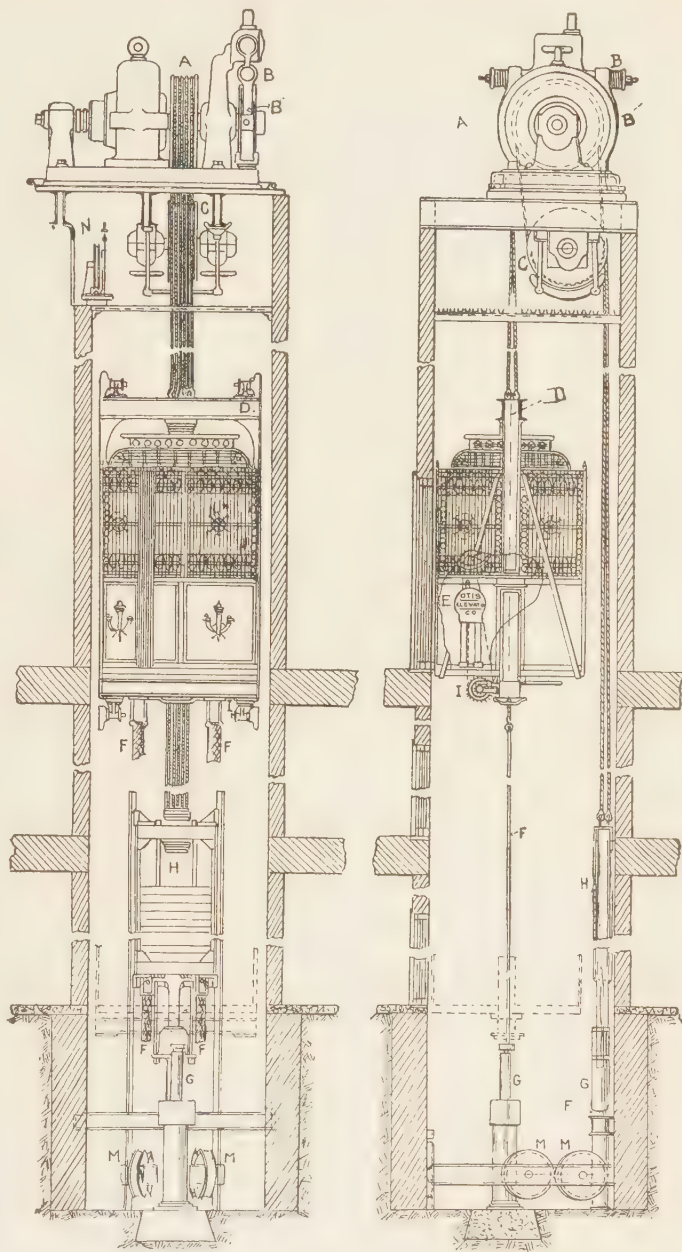
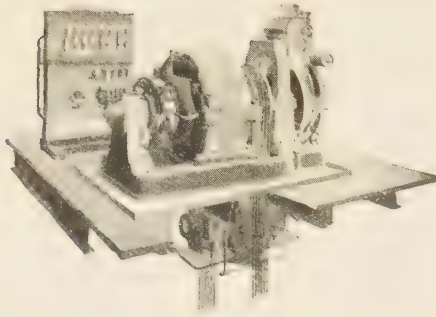


DIAGRAM ILLUSTRATING OTIS TRACTION ELEVATOR USED IN A TOWER BUILDING.

(A. Driving sheave on motor. B. Springs for actuating brake shoes. B'. Shoes released by magnet overcoming or compressing springs. C. Idle sheave. D. Girdle carrying car. E. Control switch. F. Flexible compensating cables attached to car and counterweight and passing around sheaves M M', at bottom of hatchway. This compensating device equalizes the weight of the cable as the car varies its position, so that except for live load in the car the weight on the motor is always the same. Flexible cables are used instead of chains to insure quiet. G. Oil buffers at bottom of shaft and for counterweight. H. Counterweight. I. Safety device. M. Sheaves around which compensating cable passes. N. Centrifugal governor.)



THE OTIS TRACTION MACHINE MOUNTED AT THE TOP OF THE SHAFT IN A TOWER BUILDING.

as those below. And an important factor is that no matter how high the building, renting conditions demand that the time from the ground to any floor shall not exceed one minute. Therefore, it is necessary in the case of a large building where there are many tenants to maintain local and express service, the latter not making any stops between the ground and some determined floor, such as the ninth or tenth, while if the building is very high express service for floors beyond the sixteenth or twentieth may be maintained by some of the cars, and under exceptional cases to even a higher point.

It was once believed that the number of elevators in a building should be based upon the number of square feet of rental area, but to-day the problem is more complex and elevator engineers have not only to figure on the number of floors and their area but on the character of the tenancy. There must be enough cars to give ample service both for the comfort and advantage of the tenants and for safety and economy, and what is more a

regular or schedule service must be maintained, and for this purpose starters are employed on the ground floor and various mechanical devices used. If there are not enough elevators the patrons of the building, besides enduring the discomforts and crowded cars, are forced to wait while cars run by, and the building soon gets a bad name. If cars and operators are overworked accidents are likely to happen, and this is, of course, a fruitful source of expense either to the owner or to an insuring company. It has been computed that the best service and the greatest economy are secured when the number of cars is so proportioned that with the usual average traffic stops are made at four-tenths of the number of landings, and that each car



GROUND FLOOR OF METROPOLITAN LIFE INSURANCE COMPANY TOWER.

(There are three elevators on either side. The indicators are over the handsome marble and bronze doorways.)

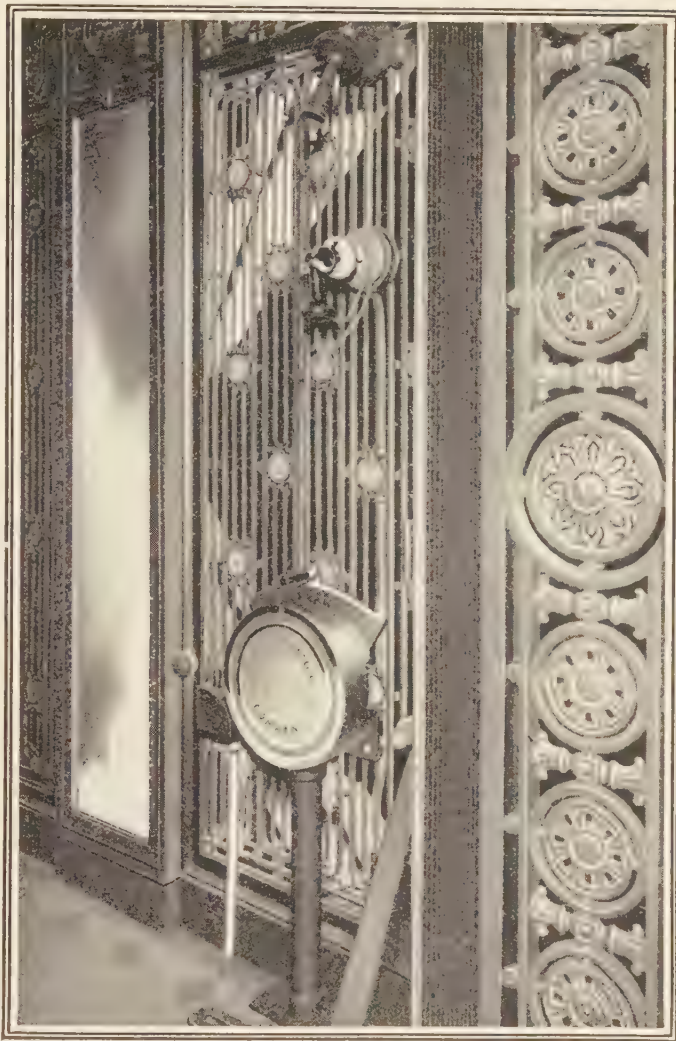
runs with four-tenths of its maximum load.

IMPORTANCE OF THE OPERATING SYSTEM.

But conditions of operation are no less important than those of design. The starter or floor superintendent is no perfunctory personage, as the success of the system depends upon the regular movement of the cars, and in the new Metropolitan Tower as well as in the Singer Building starter and engineer are in direct telephone communication with each operator, a loud speaking receiver being placed near his head in the car. Indicators, showing the movement of each car, are placed before the desk of the chief engineer while there are mileage recorders automatically operated which sum up the travel of each machine in miles just as is done in railway engineering, in order to determine the efficiency of operation. And the operator's position is one of constantly increasing importance, for the longer runs and higher speeds not only require greater skill in making the landings accurately, but as the ingress and egress of passengers is the largest item of time consumed their movement must be expedited as far as possible.

SAFETY APPLIANCES.

With the added responsibility of the operator various mechanical devices have been introduced to lighten his labors. When a passenger desires to board a car he presses either an "up" or "down" button, and by an audible or visible indication the first approaching car is signaled and the operator brings his car to a stop in front of a doorway to which he has been attracted by the glowing of the light. As the manual labor of opening or closing the doors consumes



INTERIOR OF ELEVATOR CAR, SINGER BUILDING.

(Showing at top megaphone, or loud speaking receiver, for car operator, telephone set for operator, controller and emergency levers and switches. Operator can communicate with the starter over the telephone.)

time and effort, this is now done mechanically either by springs and belts or by compressed air in the interest of speed and safety.

The operator has an emergency brake which he can set at once, and in case of accident the car can be clamped tight to the rails immediately. But it is not necessary to depend on the operator in case of danger, for in case he forgets to bring the car to rest at the top or bottom of its journey there are limitation switches or valves which cut off current or power, and so perfect is their action that some operators rely on their opera-

tion under normal conditions. Moreover, the safety of the passenger is guaranteed by far more elaborate means than these.

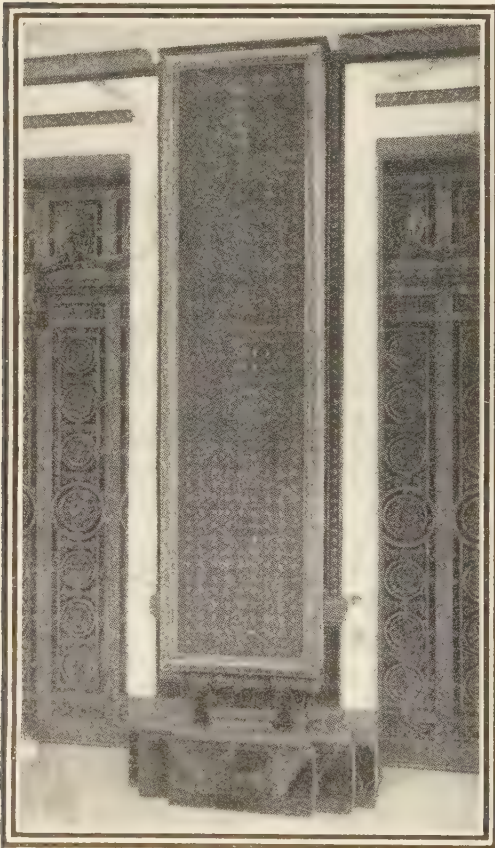
A usual safety device is a ball governor mounted at the top of the shaft and revolved by small cables attached to the car. Should the speed for any reason exceed 800 feet a minute, this device operates and not only is the power cut off and the motor stopped, but wedge clamps beneath the car are instantly thrown into operation and the car is held to the rails, possibly necessitating an exit by means of a step ladder. But speeds below this may be productive of danger if not properly arrested, and in the direct-traction elevator, for example, there are hydraulic buffers under both car and counterweight which can take up the shock of a sudden stopping without damage. These have actually been tested and found to work perfectly with a

rapidly descending car where the other safety devices have been temporarily cut out. Then there is a device extensively used known as the "Cruickshank safety," where parallel wires extending the length of the shaft are supplied with cross cleats on which swinging dogs can engage when the proper speed is exceeded, and the friction of the cleats is sufficient to retard or stop the car. Other forms of retarders are also employed, these being particularly suited for any mischance where either car or counterweight is carried to the top of the hatchway and the cable is torn loose, so that unless it is held a serious secondary accident is likely.

REGULATION AND INSPECTION.

But elevator accidents on the whole are quite rare, and this is due not only to the good engineering design and construction characterizing most American machines and to the efficient superintendence of most of the operating engineers of large buildings but to municipal regulations and inspection and the inspection of the various casualty companies that insure the owners of elevators against any damage caused by failures or other accidents. In New York, for example, the Building Department prescribes regulations for the design and construction of elevator installations restricting their speed to 600 feet per minute for high rise express cars and 400 feet per minute for local cars. In Philadelphia the city regulations provide among other items for adequate and specified safety devices.

But taken all in all, perhaps the most effective safeguard, after good workmanship, is the inspection of the various insurance companies, which is an essential part of their business and of great value to their clients, who are thus forced to observe the companies' standards. The inspections in the best companies occur at least four times a year, depending on the nature and amount of the policy, and consist of a minute examination and actual testing of the machinery, cables, safety devices, and other appliances. For the cables a direct examination with candle or lamp is made of every foot, and thus the slightest trace of wear or other dangerous condition is at once seen. The cables present an important problem to the inspector, as they vary greatly in their physical properties and in their ability to resist wear. Some have been in satisfactory use over twenty years, while others have been found defective within a few months of their installation.



POSITION INDICATOR BOARD FOR TOWER ELEVATORS
IN MAIN CORRIDOR, SINGER BUILDING.

(Small incandescent lamps show the progress and position of the cars. On either side of the board are four elevators.)



CHIEF ENGINEER'S OFFICE, OF SINGER BUILDING.

(At left is position indicator board of elevator system, by which the movement of elevators is indicated and can be supervised by chief engineer. He can communicate by telephone with each operator and the starter.)

The best casualty companies charge a minimum rate of about \$35 for insurance of a passenger and freight or a freight elevator for limits of damage up to five and ten thousand dollars. But more is paid where the risks justify, as in the case of department stores, hotels, and other buildings, where the elevators are in constant use and are patronized by women and children, rather than the trained occupants of down-town commercial buildings. Policies amounting to as much as \$60,000 for a single elevator have been written for department stores where the mechanical equipment may be of the highest grade, but the risk to passengers due to their own habits and possible negligence is apt to be very high. It is estimated that about two-thirds of the elevators in use in the United States are insured so that the passenger in an elevator containing the little card of the insuring or casualty company receives not only the benefit of the company's inspection, but the chance of recovering damages from a responsible corporation.

HAZARDS OF VERTICAL TRANSIT.

If we consider merely the total number of accidents involved in the operation of elevators a marked increase will be found from year to year, depending upon the rapidly

growing number of elevators, the high speeds demanded, and the increasing number of tall buildings. Thus a building of twenty-four stories would naturally have a landing hazard six times as great as a building of four stories, while the consequent high speed carries with it unavoidable shortcomings in control and operation. But elevators are constantly increasing their mileage, and when this is considered it is found that the relative number of accidents is greatly decreased and that improved appliances and increased care in operation are constantly diminishing the relative number of mishaps for which elevators in high buildings must be held responsible.

VOLUME OF TRAFFIC.

While the vertical trip may be short, yet the volume of traffic is enormous, and in the Borough of Manhattan approximately 9000 passenger elevators and 12,000 freight elevators are engaged in the daily transportation of 6,500,000 people. In the six years, 1903-1908, more than 4000 of these machines were installed, and in the period 1903-1907 there was an increase of rented area of 23,870,006 square feet, or about 550 acres, distributed as follows: Business buildings, 9,725,921 square feet; lofts and stores, 10,965,837 square feet; factories, 3,178,248 square feet.



MAIN CORRIDOR OF GROUND FLOOR, SINGER BUILDING.

(Showing entrance to tower elevators. The lights in the globes over the doorways automatically indicate the approach of a car and its direction.)

But the most interesting development due to elevators is found in the lower part of the Borough of Manhattan, where there are 26 buildings of 18 floors or over; in other words, at least 200 feet in height. Now, these buildings would aggregate in total height 572 floors, or a distance corresponding to about one and one-third miles, and their rental area would aggregate over 5,000,000 square feet, or approximately 116 acres. These 26 buildings contain 116 express elevators, which have an aggregate mileage record of 275 miles per hour and a carrying capacity of 243,000 per day of eight hours. There are also 115 local elevators of approximately the same mileage, but carrying about 372,000 persons per day. Thus in 26 buildings there are to be found 231 elevators running some 4400 miles and

carrying a total of 615,000 passengers daily, so that when we consider there are in New York City over 500 buildings exceeding 125 feet in height it is not difficult to realize that the 8000 passenger elevators in apartment houses, stores, loft buildings, and office buildings carry approximately 6,500,000 people daily.

Rapidity of travel and the handling of passengers is more important than large capacity in a passenger elevator, except under such special conditions as at a subway or elevated station, so that powerful machines and large sized cars are less useful in office buildings and large shops than a larger number of smaller cars. In hydraulic as well as electric elevators, particularly of the direct-traction type, auxiliary devices are available for increasing the lifting capacity when it is necessary to raise office safes or heavy furniture. Thus in the Metropolitan Tower and Hudson Terminal Buildings several of the elevators are provided with safe-lifting arrangements which enable a load of 5000 pounds to be handled.

With quantity of elevators goes also quality, for American machines have more than a foothold and stand unrivaled in all countries of the world. On the Eiffel Tower, in the underground railways and tubes of London, in tunnels under the Elbe at Hamburg, and under the Clyde at Glasgow, and in literally every city of the civilized world may be found "lifts" of American manufacture working successfully at a wide variety of duties and in many kinds of buildings. While less poetic than the airship, its maker, the hard-working mechanical engineer, may claim to have made habitable quite a portion of the upper air and to have caused at least the equivalent of two buildings to grow where only one grew before.

COMMERCIAL MANCHURIA.

BY EDWARD C. PARKER.

MODERN history affords nothing so spectacular and absorbingly interesting as the recent political history of Manchuria. On its frontiers and on its thickly settled farm lands have been fought the only battles in the world's history in which modern fire arms have been used. The siege of Port Arthur and the battles of Liaoyang and Mukden are almost as famous as the battles of Waterloo, Bunker Hill, and Gettysburg.

For fifteen years Manchuria has been the center of the most important political moves in the Far East, and the world has watched the movements and policies of numerous powers from their attitude toward Manchuria. In 1894 a large area of Manchuria was ceded in perpetuity to Japan by China as a result of the Chino-Japanese war and returned to China following a joint protest from Russia, France, and Germany concerning this territorial acquisition by Japan. Then began Russia's activity in securing railway leases in Manchuria and the building of a railway that connected Siberia with a deep, open port in the Yellow Sea,—all under Russian control. Out of Russia's policy of aggrandizement and Japan's jealousy and fear of the Russian advance in Manchuria the great war of 1904 developed, and all the world watched this gigantic struggle of two races fighting their battles on neutral territory,—territory belonging to the Chinese Empire. So closely has the history of Manchuria been interwoven with that of Russia and Japan that it is no wonder that Manchuria is often spoken of as Russia's frontier or Japan's newly acquired territory in Asia. As a matter of fact Manchuria comprises the three Eastern provinces of the Chinese Empire and is governed by a Viceroy appointed by the Imperial Chinese Government at Peking. Russia's rights in Manchuria are confined to the railway leases in the North and Japan's rights to the railway leases in the South, assigned to her by Russia at the close of the war.

Politically, Manchuria is well known, but the commercial activities of this great country, that has been the center of such tremendous political disputes, are almost unknown to the Western world. Its agricultural products are not quoted in Liverpool or Chicago

and its mineral and forest wealth are not recognized factors in the manufacturing and lumber industries of the world.

AREA, CLIMATE, AND SOCIAL CONDITIONS.

Manchuria, however, has sufficient potential wealth within its boundaries to cause exclamations of surprise from even the inhabitant of North America accustomed to the vast rolling prairies of the Mississippi Valley and Canada and the forests of the Pacific Slope. Nature has been bountiful in Manchuria in the distribution of those material things that men prize and that give nations the basis for commercial supremacy. It is no exaggeration to say that an equal area of contiguous land could not be found in North America that would contain so many forms of natural wealth and in such quantity as are contained within the boundaries of Manchuria. Conceive a region whose area is slightly greater than that of the combined area of Iowa, Minnesota, North Dakota, South Dakota, and Nebraska, or the total area devoted annually to corn, wheat, cotton, oats, and barley in the United States; locate this region on the easternmost coast of Asia bordering the Pacific, with several magnificent harbors; and conceive of a climate that varies between the latitudes of Indianapolis and Winnipeg in North America and you have Manchuria.

The climatic conditions show all gradations from semi-aridity to the humidity of the American corn belt and the dry cold of Manitoba. The most characteristic feature of the climate is the continuous bright sunshine that rivals the clear skies of Colorado, the windy dust storms of winter and early spring, and the heavy downpours of rain in August,—a combination that is most profitably advertised in Southern California.

Manchuria is not typically Chinese. It is newer, bigger, and freer than the provinces of South China. It is to the Yangtse Valley region of South China what Montana, North Dakota, and Minnesota are to the New England States. Its native people, the Manchus, are greater in stature and more vigorous of body than the natives of South China, and more typically an outdoor people. As yet

the density of population in Manchuria is relatively small as compared with that of South China. In Feng-tien Province, the southernmost province of Manchuria, the population averages about 100 per square mile, and in the Northern provinces of Kirin and Hei-lung-chiang vast areas of wild sod land exist that await the plow of the pioneer. Colonization is one of the large problems essential to the full development of the country, and seemingly difficult in Manchuria with the Chinese, whose emigration throughout the history of the country has always been up the rivers,—and Northern Manchuria drains North into Russian territory.

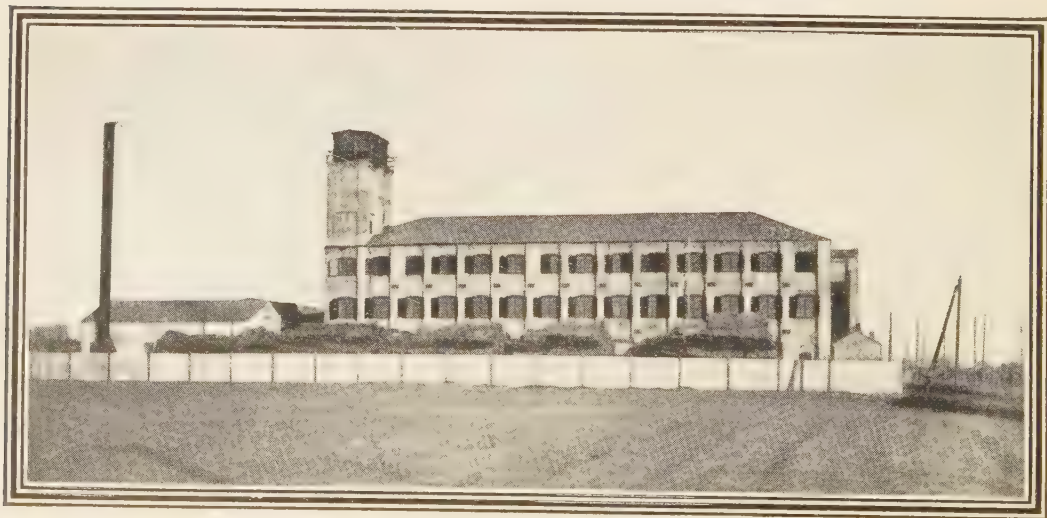
THE NATURAL RESOURCES OF MANCHURIA.

To fully describe the natural resources of Manchuria would be a task of considerable magnitude, for the area is big and the resources varied. The mountains and hills of the East and Southeast are rich with minerals. Coal abounds in many places, and forty-three mines are now in operation in Feng-tien Province. What the output of coal might be under proper management no one can say, for native mining is most crude and rich veins are merely scratched. Silver, lead, gold, platinum, asbestos, antimony, and iron mines have been located in great number and are awaiting the touch of development to swell the business of the country. In all probability gold supplies for a new monetary scheme in China could be taken from the mines of Manchuria, thus making practical

the possibility of China's release from the present evils of a fluctuating silver currency.

About the head-waters of the Sungari and Yalu rivers are magnificent virgin forests of pine, walnut, and ash. Some lumbering is carried on by the Chinese, but the methods are so crude and wasteful and the cost of getting lumber out so high that timbers and dimension stuff cannot compete with Oregon pine in the large markets.

The mineral and forest wealth of Manchuria, however, is insignificant compared to the almost boundless wealth of the soil. Thousands of square miles of deep, brown, loamy soil exist, the fields stretching away to the horizon or to the background of a rugged mountain, dotted here and there with the mud houses of the farmer, and creating in the mind as nothing else can the impression of vast wealth. From this wonderfully fertile soil the native farmer takes bountiful crops by methods that would soon bankrupt the American farmer. He keeps no live stock except a few pigs and ponies, and, therefore, has very little manure to put on his land. He grows no grass crops and he knows almost nothing about soil tillage. He sows his seeds and the fertile, loamy soils give up their products almost unaided by the skill or mechanical genius of man. About the centers of life the fields are small and the farmer grows garden truck and potatoes, but in the interior the universal crops are kaoliang (sorghum), soy-beans, and millet. The kaoliang and millet are the staple foods of



THE NEW FACTORY OF THE BRITISH-AMERICAN TOBACCO COMPANY IN MUKDEN.

(This factory is greatly stimulating the tobacco industry of Manchuria by the creation of a stable market for good tobacco.)



THE AUTUMN AND WINTER LONG TRAINS OF MANCHURIAN CARTS CARRYING TOBACCO, WHEAT, HEMP, LUMBER, AND OTHER PRODUCTS TRAVEL ANYWHERE FROM 50 TO 400 MILES TO MARKET AND PRESENT A MOST PICTURESQUE APPEARANCE.

the people, just as rice is the staple food of Japan and South China, and the soy-beans are the "money crop" of the country,—cooking and lighting oil being expressed from the seeds and the residue being shipped to Japan to fertilize the rice fields. The bean-cake shipments from Newchwang, Dalny, and Antung in 1908 amounted to 515,198 tons; beans, 239,298 tons; bean oil, 1930 tons; having a total value of \$15,016,649 (United States gold).

FRUIT, TOBACCO, AND SILK.

In the hilly region of southeastern Manchuria Indian corn is the staple crop and staple food of the people. Peaches, apricots, pears, and crabapples grow wild in the hills, and only a few Chinese are engaged in fruit culture, although the demand for fruit is great and carloads of oranges and pears are shipped in from Japan and South China. In Kirin Province in the North considerable tobacco is grown, and considering the native methods of growing and curing the quality is most excellent. Tobacco experts believe that this region could produce tobacco of equal quality with Virginia tobacco if the crop was properly grown and cured. Wheat is grown in considerable quantity in the North as well as buckwheat and hemp.

The growing of silk cocoons on the native oaks that cover the hills of southeastern Manchuria is an agricultural industry of consid-

erable size, the trees being cut back every few years in order to furnish new growth for the silk worms. The cocoons are shipped to Chefoo in China and to Japan, where the spinning and weaving of pongee silks is done.

AGRICULTURAL METHODS.

All through Manchuria the country people live in villages and go out from the villages to their work in the fields. In many places no dwellings are visible for many miles, and one can almost imagine one's self among the bonanza farms of the Dakotas. There is not enough labor in the country to sow and harvest the crops, and thousands of coolies come in every year from Shantung Province, receiving wages of 10 cents to 30 cents gold per day, and swarming back to their homeland again at the approach of winter. Practically all of the farm work is done by hand with hand tools and by the most back-breaking of methods. A rude plow is drawn over the soil to furrow it out a little and the seed is dropped and covered by hand. Harvesting is still more laborious, the cutting being done entirely by hand with a little sickle costing about 10 cents gold. In many districts the labor problem is a serious one to the owner and leaser of land, and there is a great field awaiting the genius of some advance agent who knows what machinery these people are capable of buying and using, and can sell them the machine.

Undoubtedly the most interesting feature of Manchurian commerce is the great cart traffic of the interior. In South China the population is so dense and the villages so numerous that produce is transported almost entirely by coolie labor, and roads so-called are mere foot paths. But the agricultural products of Manchuria,—the coal, the package freight,—all find their way to market on a two-wheeled Manchurian cart, heavy and cumbersome, drawn by four to eight mules and ponies. The average load of one of these carts is about 1600 pounds, or 800 board feet of lumber.

TRANSPORTATION FACILITIES OF MAN- CHURIA.

In the winter time long trains of these carts carrying tobacco, wheat, hemp, and other products travel anywhere from 50 to 400 miles to market and present a most picturesque appearance. The mule teams are guided without rein or bit, the carter shouting his commands and enforcing obedience with a long leash attached to the end of a bamboo pole. Often in his manœuvering and whipping he cracks his whip about the head of a mule or pony and snaps out an eye, and hardly a mule team can be seen that has a full set of eyes. A train of these carts will average about thirty miles' travel a day, and when night settles down a scramble begins to find accommodations in the wayside inns that line the highways. Soon the mules

are unhitched and feeding in the open yard, while the carters warm themselves over the bricks of the Chinese kangs, drinking samshu (native wine) and recounting the experiences of the day. By eight o'clock everybody is asleep and snoring loudly, and then at 5 A.M., in the frost and chill of the morning, the carters arise to squabble with the innkeeper and to hitch up for the day's travel. By 6 A.M. the last cart with its swinging lantern has left the inn to renew its long, weary journey marketward.

If you chance to, be an observer of commerce you wonder how these carts can travel such tremendous distances with loads of such little value, and you show by statistics that it is uneconomic and that often the cost of transportation is greater than the value of the load; but nevertheless the carts continue their creaking trips and compete for long distances with the Russian and Japanese railways. These people and their methods, however, are not to be measured with figures as are those of Western people. The country consumes a large part of his crop and exchanges only a small part for cash. His time is worth nothing, and as for depreciation and all that sort of thing,—he knows little and cares less. And so it is that the carts carry their loads from the tobacco fields of Kirin to Mukden and Newchwang in the South, 350 miles away, and wheat comes into the mills from a distance of 200 miles.

Again, if perhaps you have watched the wagons of the American grain grower going to market with from fifty to seventy-five bushels of wheat drawn by two horses you wonder at this crude two-wheeled cart of the Manchurian countryman that tips over on the slightest provocation and cuts such deep ruts in the roads. But your wonder ceases when you have seen the typical Manchurian road, and you see that a modern farm wagon with its four wheels would be useless here. Roads in Manchuria are not surveyed, nor legally controlled. Like Topsy, "they just grew," and they grow always from bad to worse,



A LARGE GRAIN-CARRYING JUNK ON THE NONNI RIVER.

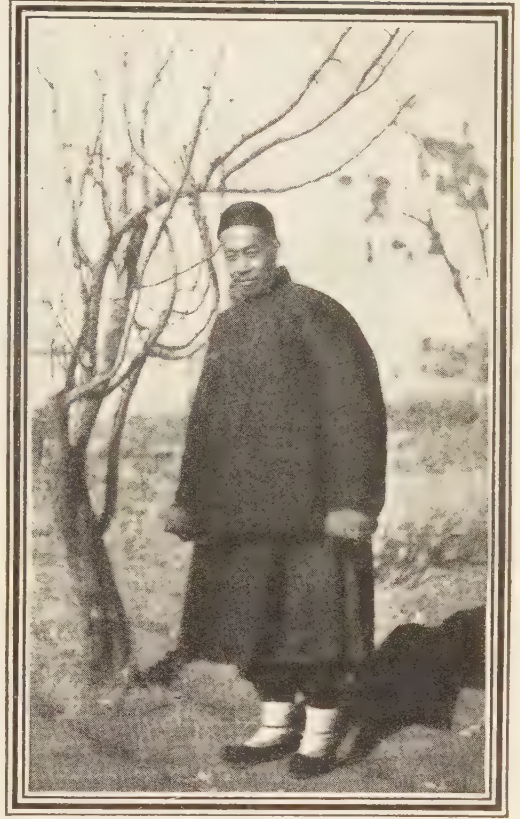
with nobody to arrest the movement. In time they become canals and rivers in the rainy seasons, and farmers unlucky enough to own land adjoining a road build up dikes to keep out the water that gathers. At times traffic is absolutely stalled and business stops even in the cities, because nobody can get anywhere. When the roads become impassable in the country the carters leave the regular road and ruthlessly drive across anybody's land that is high and dry. Sometimes this deviation from the troubles of travel fails, because the land owner and his boys come forth with mattock and spade and dig a trench behind a dike along their land and the carter is forced to stay by the main road until he can find an opening on a less diplomatic farmer's land. And so the roads come to wind in and out in the most unreasonable manner, fording streams until a wallow is formed and then deviating to a new ford with a consequent diversion from the shortest route.

A considerable traffic exists between the interior and the port of Newchwang by junk, but sand bars and irregular water levels make it undependable. The South Manchurian Railway, equipped with American rolling stock and now managed by the Japanese, is doing an enormous freight business with agricultural products, and its terminus, Dallyn, is fast growing into a commercial center that rivals the old and well-established Chinese port of Newchwang. It is the same old story of development depending on transportation facilities and cash markets. Manchuria's development needs the far-sighted genius of such men as J. J. Hill and Shaughnessy, who built the steel paths of commerce into the heart of North America and waited patiently the coming of settlers and the coming of dividends.

INDUSTRIES USING THE PRODUCTS OF MANCHURIAN AGRICULTURE.

With the exception of the export business in bean oil, bean cake, and raw silk the markets for Manchurian products are almost entirely local. Almost every town has its grist mill, its bean oil factory, and its samshu distillery, where the surplus products of the region are condensed into oil, flour, and wine. Of late years the Chinese have become great consumers of wheat flour, and this demand is not entirely met by the native mills,—large shipments of American Pacific Coast flour coming to the centers of trade.

The Japanese have recently built an



A MANCHURIAN FARMER DRESSED IN HIS WINTER GARMENTS.

American mill of 400-barrel capacity in Manchuria that is turning out a good product and cutting inroads into the imports of American flour. Were it not for government aid, however, this mill would have to struggle to compete with the technique and by-product market of the American mills and with native mills, which can buy wheat at a much lower price than the foreign mill and sell the product free from transportation charges. During the Russo-Japanese war the Russians had twelve flour mills in operation along the railway in Manchuria, but with the ending of the war the bottom fell out of the business and only five of these mills are now in operation. The recent closing of the port of Vladivostok to foreign trade will undoubtedly increase the interior manufacture of flour and the Harbin mills may take on a new lease of life.

Very little foreign capital is invested in Manchuria in industries drawing raw materials from the soil, the only business of any size besides the flour mills and the trade in



THE MANCHURIAN CART DRAWN BY FOUR TO EIGHT MULES.

(Cumbersome and of small capacity, but fitted to survive the Manchurian roads.)

bean cakes being the tobacco trade of the British American Tobacco Company. This corporation has recently erected a large cigarette and tobacco factory at Mukden and is buying large quantities of native tobacco. Tobacco growing in Manchuria will undoubtedly be greatly stimulated by this business, as would all forms of agriculture if bigger, broader markets existed.

COMMERCIAL POSSIBILITIES.

To turn from a discussion of what is in Manchuria to a discussion of what might be is an entirely different story. One's imagination fails to grasp what the commerce of this great country would be were it opened up, brought in touch with world markets, and its soils tilled with American machinery and by the best crop-growing practices of America. There is wheat land enough in the North to make a second Minneapolis out of Harbin, and could the by-products of the soy-bean crop be fed to young cattle grazed on the wild grass lands of Mongolia, Mukden would soon develop into a second Chicago meat-packing center. The conditions for meat production in Manchuria and Mongolia are almost ideal, and yet very little meat is grown because the local demand is limited to the Mohammedans, the Russian military, and a few foreigners. The soy-bean, which yields so bountifully everywhere, is as great, if not a greater, natural trade advantage than

the Indian corn of Illinois and Indiana. With soy-bean meal, kaoliang and Indian corn to fatten cattle with and with thousands of square miles of wild grass lands in Mongolia to grow young cattle on, Manchuria could stand in the front rank of meat exporting countries.

Experiments in the growing of sugar beets in Manchuria have shown that soil and climate join to afford an unusually favorable environment for sugar production,—beets often testing out from 14 per cent. to 18 per cent. of sugar. Russian capital has been organized to build a sugar-beet factory near Harbin, and if the Manchurian farmer will learn to grow this crop he has a fortune awaiting him, for the loamy, fertile soils and continuous sunshine of this country are almost ideal for this crop. The Chinese are large consumers of sugar, and there are no climatic or soil difficulties in the way of producing home grown sugar. Not only are the climate and soil favorable for sugar beets, but the cheap coolie labor of the East, if properly managed, would give Manchuria a most unusual combination of producer's advantages.

WHAT IS NEEDED TO DEVELOP MANCHURIA.

But Manchuria needs railways, capital, and far-sighted managing ability to organize these things, and who may prophesy the development of this country? Will it fill

up with the overflow of Chinese from the Southern provinces and gradually develop the social and economic customs of the thickly settled districts of South China or will it absorb Western ideas and have a portion of its people produce food for local consumption and for export, while another portion develop the mines, man the railways, and prepare the surplus products for exports? It is a long way from South China to Manchuria, and the travel is not easy, nor is the northern latitude agreeable to the man accustomed to the heat of the South. Surely Manchuria is the ideal experiment ground of all Asia for the testing of Western methods of economic progress on Eastern people. If the use of Western agricultural machinery, mining and lumbering methods, and transportation methods fail here they will certainly fail in other Eastern regions.

And no one can doubt that the most farsighted of the Chinese officials realize this fact. In 1907 the government of Manchuria, by imperial edict, was changed from a system in which three Tartar generals ruled over the three provinces, responsible to the crown only for taxes, to a centralized government headed by a Viceroy and three Governors. The officials appointed to this government were a remarkably progressive set of men. A number of American students were included in the list, among them Tang-Shao-Yi and M. T. Liang. The mining, agriculture, and foreign offices have been pre-

sided over by men who speak and understand English well, and the Manchurian Government has become known far and wide among foreigners as the most progressive of provincial governments in China.

During the short term that these men have been in office they have inaugurated reliable police protection in every city of Manchuria, built many miles of paved city streets, built sanitary prisons, and inaugurated disciplinary imprisonment for petty crimes; built government-supported industrial and agricultural schools and employed German and American forestry and agricultural experts to assist them in inaugurating these reforms. They have planned wisely for the future. There may be mistakes in management and financing, as often happens in new government policies, but a continued, persistent government effort to develop the commerce of Manchuria is bound to show results.

There is much being said nowadays about the "awakening of China," and he who is conservative enough to compare modern tendencies in China with the conditions of thirty years ago can readily see that progress and awakening are "in the air." That Manchuria will lead in this movement cannot be doubted when the geographical, social, and economic conditions of this country are considered. It is not beyond reason to believe that Manchuria will some day be an exporting country and have its products quoted in Liverpool and Chicago. Who can say?



A CHINESE FERRY ON THE NONNI RIVER IN MANCHURIA.

(All traffic must cross the large streams in Manchuria by this method, for bridges are almost unknown, and a stream that cannot be forded must be ferried.)

CIVIL-SERVICE RETIREMENT.

DURING the last session of the Sixtieth

Congress substantial progress was made toward the passage of a civil-service retirement bill. Dozens of bills had been considered during the past twenty years by the House Committee on Reform in the Civil Service, but never before had it made a favorable report on such a bill. While the bill was not reported until February 22, too late for consideration by the House during the regular session, it received attention in debate, and a similar bill along the lines of the one reported by the House but with several important changes was introduced in the Senate by Senator Perkins, of the Senate Committee on Civil Service and Retrenchment, during the special session. A report in explanation of the actuarial phases of the plan embodied in these bills has been prepared by Mr. Herbert D. Brown, the author of the plan, for use of the Congressional committees.

While there has always been and still is strong opposition in Congress to any plan that savors of a civil pension, the need of some plan which will rid the civil service of the evil and the expense of superannuation is appreciated, and the idea of retiring employees at their own expense, as provided for by the proposed plan, seems to meet with favor. Mr. Brown lays great emphasis, in his report, on the fact that his scheme is in no sense a "pension" plan, but rather a "savings and annuity" plan. Discarding all flat-rate assessment plans, such as have been previously proposed and such as are in vogue in many countries, as inequitable between different classes of employees and therefore as undesirable in their way as a civil pension, he proposes a savings-bank plan based on deductions from the employees' salaries that are sufficient, in each case, for the purchase of an adequate annuity at the age of retirement. The plan commended itself to the House Committee on several grounds. It is self-sustaining, no charge being made on the Government beyond a reasonable rate of interest on the money held by it and the cost of administering the plan. It will improve the service by eliminating the superannuated. It will benefit the employee by retiring him on a competence. And it is as simple in its operation as a civil pension itself.

The plan proposes that each employee in the classified civil service shall, on reaching the age of retirement, receive an annuity equal to $1\frac{1}{2}$ per cent. of his salary for each year of his service, or as it may be differently stated, an annuity equal to $1\frac{1}{2}$ per cent. of the total compensation received by him during his entire service. The theoretical basis of this provision is the assumption that three-quarters pay, or 75 per cent. of his average salary, is a reasonable annuity for a person who has given his entire working life,—that is, about fifty years,—to the service. Dividing 75 per cent. by fifty years of service, $1\frac{1}{2}$ per cent. for each year of service is obtained as a basis for computing annuities for any period of service.

ANNUITIES PROVIDED BY EMPLOYEES THEMSELVES.

The annuity is created by the employee himself, who is required to set aside during each month of his continuance in the service a sum sufficient with compound interest, at $3\frac{1}{2}$ per cent., to create that annuity at the age of retirement. These deductions from salary represent no fixed percentage of salary, but vary with the age of entrance into the service, ranging in the case of employees to be retired at the age of seventy from 4.3 per cent. for the individual who enters the service at the age of twenty to 11.2 per cent. for the individual who enters at the age of sixty-nine. The amount deducted remains constant throughout the years of service, except in case of promotion or demotion, when it is increased or decreased accordingly. It is determined, in each case, without regard to the deposits of others, so that each one shall receive full return on the money which he thus accumulates.

THREE WAYS OF REALIZING ON SAVINGS.

On reaching the age of retirement, the employee may take his savings in one of three ways: in a life annuity; in a smaller life annuity with a provision that in case of the death of the annuitant before he has received in annuities the amount of his savings plus the interest credited thereon, the balance shall be paid to his heirs; or in a lump sum. The age of retirement varies, the service being divided for this purpose into

three groups, the first group consisting of railway postal clerks who may retire at age sixty, the second group consisting of letter-carriers to be retired at age sixty-five, and the third group comprising all the remaining branches of the service and to be retired at age seventy. Since it is often to the advantage of the service that an old employee be retained because of some special knowledge or skill, provision is made for the retention of such an employee after the age of retirement, for two years and for successive periods of two years each, on certificate of the head of the department in which he is employed that he is efficient and that his services are advantageous to the Government.

Upon absolute separation from the service before reaching the age of retirement, whether by resignation or dismissal, and only in such event, the employee shall have the privilege of withdrawing his accumulations in one sum, or, if the amount to his credit be at least \$1000, he may use his savings to provide an annuity at his attained age. In case of the death of an employee while in the service, the amount to his credit shall be paid to his legal heirs.

PROVISION FOR DISABILITY.

The bill reported by the House Committee contains no provision for retirement in case of disability, but the bill introduced in the Senate, which conforms more accurately to all the details of Mr. Brown's plan, contains a clause providing for retirement after twenty years' service on an annuity of 1½ per cent. of pay for each year of service in case of permanent disability. This is a very limited provision, but it is better than none, and it is all that Mr. Brown can at present, in the absence of statistics relating to disability in the civil service, safely recommend. An estimate of the cost of this provision has been made by Mr. Brown, and is presented in his report with a suggestion as to how that cost might be met, also without expense to the Government. This estimate is based on German tables of disability, the only ones available, which are so extremely conservative that they make the rates unreasonably high, and the estimate accordingly errs on the side of safety. A more liberal disability provision can doubtless be made in time, when, through the operation of the plan, sufficient statistical data concerning the disability of the civil employees has been accumulated to warrant more moderate disability rates, based on the Government's own experience.

The one difficulty of putting the plan into immediate operation is the item of cost. While the plan will be self-sustaining when once completely installed, it cannot be put into effect without some expenditure. Mr. Brown divides his plan sharply into two parts, the first part providing for the payment of annuities on all services rendered after the adoption of the plan out of funds furnished by the employees themselves, and the second part providing for the payment of annuities on all services rendered prior to the adoption of the plan. Part I. is really the plan proper, since the operation of the second part will ultimately cease with the death or separation from the service of all the present employees. It might be put into immediate effect without cost to the Government except that necessary to meet the expenses of administration, but, in that case, it would be a full generation before the public service would be benefited by a thorough elimination of the superannuated. Furthermore, considerations of justice and humanity dictate that provision be made for those already superannuated in the service and those so near superannuation as to lack time to accumulate, through their own savings, a fund sufficient to give them an annuity on retirement.

COST OF INSTALLING THE PLAN.

It is estimated that to retire all those in the civil service now at the respective ages of retirement and over and each year to supply the amount which those reaching the age of retirement lack to retire themselves would cost the Government approximately \$1,000,000 a year for a period of about fifty years (which is equivalent to an increase in the Government payroll of a little over ½ of 1 per cent.). At the end of fifty years practically all the present employees will be dead, and the plan will be completely self-supporting. Two careful estimates of this cost have been made, one three years ago under the direction of the sub-committee on personnel of the Keep Commission, of which Mr. Brown was a member, and one recently completed under his direction in the Bureau of the Census, and the two estimates agree within four-hundredths of 1 per cent.

LOSS DUE TO INEFFICIENCY OF AGED EMPLOYEES.

It has been estimated by the National Civil-Service Reform League that the Gov-

ernment's loss from the inefficiency of its employees now over sixty-five years of age, expressed in salary, amounts to \$1,200,000. Of this loss about \$400,000, according to the estimate of the United States Civil-Service Commission, is in the departments at Washington. It is apparent also that, even if the adoption of Part II. of the plan should cost considerably more than \$1,200,000 a year, for a while, it would still be a wise expenditure of public funds, for such appropriations would be practically negligible in forty years, and cease completely by the time that all present employees are dead, whereas under present conditions the Government's loss from the inefficiency of its aged employees is a steady, permanent, and growing annual loss.

ANNUITIES FOR PAST SERVICES.

The bill reported by the House Committee departs, however, from the recommendation of Mr. Brown in regard to the payment of annuities on past services and provides that these payments shall be made out of a fund created by deduction of the first month's pay from the salaries of new entrants and deductions from the salaries of those promoted of 25 per cent. of the net annual increase. This provision is held by many to be open to serious objection as fundamentally unjust, since it requires contributions which are never returned to the contributor and imposes a tax on efficiency. It is certainly contrary to the spirit of the plan itself, which is based on the principle that each employee shall provide for his own annuity and not become in any way a tax on fellow employees.

The House Committee also restricted the annuities payable out of this fund for back services to \$360 a year, which means of course that no one except a few low-salaried employees would voluntarily retire at the age of seventy and the service would remain encumbered with the superannuated until such time as the majority of them would have died off. To meet this objection, however, a clause was inserted in the bill by the House Committee requiring all employees past the age of retirement to be compulsorily retired after 1915. That this provision will be regarded as unjust and tyrannical by the many aged employees now in the service is quite apparent to those acquainted with the personnel of the service.

The Senate bill, which provides that the Government shall pay the annuities on services rendered prior to the adoption of the plan is, therefore, in far better favor with the em-

ployees themselves than the House bill, which provides that clerks entering the service and clerks receiving promotions shall pay them. It is argued that the obligation for their payment would seem to rest with the Government, which has had the benefit of those services. There would seem to be only one other possible way of putting the plan into operation, and that is by contributions from private persons. It is possible that some public-spirited citizen of great wealth might, if the difficulty of the problem were brought to his attention, be disposed to set aside a sufficient number of industrial or railroad bonds to take care of the obligation in the course of the next half-century.

The Senate bill, as stated above, contains a clause providing a limited disability benefit, the annual cost of which has been estimated by Mr. Brown to be approximately \$750,000. This cost is to be paid out of the fund created by deductions from new entrants' and promotion salaries, Mr. Brown contending that such a fund may consistently be used for such a purpose, since the contributions would then be used for the mutual protection of the contributors. This would not be the case if they were employed to pay annuities on past services. The amount available in that way for such a fund has been estimated as approximately \$1,412,329 a year, nearly twice that required the first year, so that it seems plain that ultimately more generous disability benefits may safely be provided. It thus appears that in settling the vexed question of how to put the plan into operation Congress will be solving not one problem, but two, since the payment of annuities for past services by the Government makes possible the inclusion in the bill of a valuable provision covering disability, for which there is no room if the fund created by deductions from new entrants' and promotion salaries is employed, as in the House bill, to pay annuities on back services.

OPERATION CONFINED TO THE DISTRICT OF COLUMBIA.

Both bills propose to limit the operation of the plan at the start to the District of Columbia, since superannuation there is much greater than elsewhere in the service, practically one Government employee in every fourteen in the District being at least sixty-five years of age, while elsewhere only one in thirty-four has reached that age. Restriction of the plan to the civil service of the District of Columbia, that is, to 23,254 employees

as against 170,228 employees in the whole service, is to be commended also on the general principle that it is always desirable to proceed slowly and cautiously in the inauguration of any new measure. To put the plan into operation in the District would cost approximately \$400,000 a year for fifty years, a sum that just offsets the present cost of superannuation in the District, according to the estimate of the Civil-Service Commission mentioned above. Other branches of the service could be included gradually, as seemed desirable.

The Senate and House bills agree in restricting the investment of the fund created by the employees' savings to federal, State, and municipal bonds.

CAN THE PLAN BE MADE EFFECTIVE?

It thus appears that the bills before Congress agree on one definite plan of retiring civil employees, but disagree in the method proposed by which the plan is to be put into operation. The plan proper, as first worked out by Mr. Brown and embodied in three different bills presented a year ago, remains the same.

This plan was devised by Mr. Brown several years ago while he was in the employ of the Bureau of Corporations. Previous to that he had been in the insurance business in Buffalo, and had taken an interest in the actuarial problems which are involved in all insurance transactions. Noting the needs of the Government service, he began to study the various retirement plans which had been introduced into Congress. Finding them all unsound and inequitable, he set about devising one that should meet the requirements of the situation. When he had perfected his plan, being a native of Fort Madison, Iowa, he laid it before the senior Senator from Iowa, the late Senator Allison, who as chairman of the Senate Committee on Appropriations, had a lively appreciation of the imperfections that existed in the many plans previously proposed. Senator Allison was interested and recommended the plan to the consideration of Representatives Tawney and Gillett, who as chairmen, respectively, of the House committees on Appropriations and Civil Service, desired that the fullest possible data in regard to the cost of putting the plan into operation might be furnished them. About that time Mr. Brown was appointed a member of the sub-committee on personnel of the Keep Commission. He accordingly

laid his plan before the sub-committee, and about a year and a half ago the Keep Committee made a report on superannuation in the civil service, recommending the adoption of this plan. Their report was sent to Congress in a special message by President Roosevelt.

In a speech delivered to the delegates to the Civil Service Retirement Association convention, held in Washington last spring, President Taft declared himself in hearty sympathy with the movement for which they stood. One member of the President's official family, the Secretary of the Treasury, has had particular occasion to realize the necessity of a retirement measure, for he has had the unpleasant duty recently of reducing numerous superannuated employees in the Customs Division in order to maintain the efficiency of the service.

Whether Mr. Brown's plan for retiring civil employees is adopted or not, his report has cleared away the haze that has hung for years over the subject of superannuation in the civil service and how to deal with it. Since Congress closed he has begun the preparation of a report for the Bureau of Labor on Old Age Retirement Systems generally, both private and governmental, which will also be of assistance to Congress. Year after year, the Civil-Service Commission and the heads of the executive departments have called attention, in their annual reports, to the need of a retirement measure, if the affairs of the nation are to be conducted in the efficient and expeditious manner of private business concerns, but no plan has ever before been proposed that was not open to serious objection, either as a burden on the country or as unfair to the employees themselves. By a process of elimination, Mr. Brown has arrived at the economic principles which should underlie a just retirement measure, and then he has built up such a measure on sound mathematical lines.

The one difficulty is that of launching the scheme! Since nothing is asked of the Government toward the support of the plan except the small cost of administration, and the Government is the chief beneficiary under the plan, it would seem only fair that the Government should be willing to set it in motion without asking that the expense of retiring those already superannuated be carried by the younger employees, who feel that if they retire themselves without expense to the nation, they have done enough.

COLLEGE REFORM—AND FOOTBALL.

BY ALBERT SHAW.

IT is the experience of the world that institutional abuses have to be corrected from the outside. The academic caste has always been disposed to resent newspaper criticism and to look with disdain upon the often crude and ill-expressed judgments of the man in the street. Yet it is plain enough that there is much that has gone wrong in our schools and colleges,—and this at the very time when public and private sources of wealth are pouring out countless millions for their enlargement and enrichment.

At one period there were rude flings from the philistine by-standers who ridiculed college life for its sequestered remoteness from contact with the great world. The college graduate as he came out into life was hailed with satirical pity, as totally unfamiliar with practical conditions and the current ways of the world. He was reputed a pale person, wearing a frock coat.

APPREHENSIONS ABOUT COLLEGE LIFE.

In those days, however, the people who sent their sons to college had no misgivings. They believed that to breathe the college atmosphere meant intellectual stimulus, high ideals, and the almost certain triumph in personal life of the moral and spiritual over the material and commercial. Far from being afraid of the colleges, parents were ready to make every sacrifice to get their boys under the inspiring guidance and teaching of the Woolseys, the Mark Hopkinses, the Fairchilds, and the many others of that type.

There has been an astonishing change in this feeling. There is great fear and dread lest four years spent in college shall spoil young men for lives of real industry, real intellectual vigor, and real moral power. Wherever intelligent and thoughtful parents are gathered together one hears such questions as, first, Are you going to send your boy to college? and, second, Would you *dare* to send him to such or such a famous institution?

Under the new conditions nobody charges the undergraduate with ignorance of the ways and modes of the world about him. His sophistication seems beyond that of the man of forty of the previous generation. This, of course, is not true of all students,

but it is true of a great many of them, especially in the more famous of our colleges in the eastern part of the United States. In the days not very remote, drunkenness, gambling, lavish expenditure, and scandalous practices of other sorts had no place in American college life. The rare, sporadic outbreak of anything of that sort was followed by immediate expulsion. Undergraduates were subjected to close discipline.

CONFUSION BETWEEN COLLEGE AND UNIVERSITY.

The colleges were then comparatively small. The remarkable theory had not then been invented that there could be any peculiar virtue in massing large numbers of students in a few institutions for ordinary undergraduate study. Nobody in those days would have thought that Princeton or Yale was a better place for undergraduate life and work than Center College in Kentucky or Miami University in Ohio. It would be a long story to tell how the curious notion came into existence that if you might only mass a sufficient number of college boys together at one place they could call themselves "varsity men," and would not need the discipline of college boys.

The big institutions have been making notable efforts to become universities, with the result of a distressing period of almost hopeless confusion between college work and real university work. This has been responsible in some degree for the chaos that has arisen in the undergraduate life of institutions that have been admitting from 2000 to 4000 undergraduates when they were not so organized as to do justice to more than 600. The nature of this particular difficulty is at last somewhat clearly seen. It will have to be remedied, although a number of years will be required to get college life and work back into the place where it belongs, so that the large establishments may "function properly."

WHAT THE SMALL COLLEGE CAN DO.

Most of the best undergraduate work today is being done in the smaller colleges of the country. The best university work, on the other hand, is, of course, being done in

the great institutions. The requirements for entrance to college have been pushed too high. As a presumptive rule, the ordinary boy should be prepared for college in the nearest high school, should enter college at sixteen or seventeen, and should attend the college nearest the place where he lives. He should have a pretty well rounded curriculum; should learn to read, write, and spell the English language (as was usual in the earlier college period); should gain some hold upon the history of the world, with its great classical traditions; should get a firm grounding in the principles of science and economics, and should then be ready either to go to business, or else to enter one of the great American or European universities for postgraduate or professional studies.

For university work, our institutions cannot have too much equipment in the way of libraries, laboratories, opportunities for original research, and environment of productive scholarship. For college work, on the other hand, the facilities do not need to be vast and bewildering; and the great thing now, as forty years ago, is the training of an all-round man, so that he may live a fine life of intelligence and character among his fellows.

THE PROBLEM OF THE UNDERGRADUATE.

The excesses and dangers which cause parents nowadays to dread the college influence,—which once parents welcomed,—have nothing to do with real university life and work. Nobody is bothered about the conduct of the postgraduate men at the Johns Hopkins, at Harvard, Columbia, Yale, or anywhere else. They are not boys, but men, working eagerly and responsibly.

The trouble is with the management of masses of boys, in the undergraduate stage. President Lowell evidently recognizes the nature of the problem at Harvard, and is seeking to bring some sort of organized direction into the conduct and work of the thousand or more freshmen who come up to Cambridge each year to try to find their way in a great institution of 5000 members. President Woodrow Wilson, of Princeton, has for years dwelt upon the necessity of breaking the mass of undergraduates up into distinct groups, separately housed and carefully directed in their studies and college life.

If some of our simple, old-fashioned colleges have grown into educational monstrosities, it would be neither useful nor timely to criticise anybody in particular as having helped to quicken such a tendency. The

important thing is to recognize evils and to correct them. Many,—not all,—of the people inside the academic guild are too much part and parcel of the system, and too much infected with its faults, to be strong for reforming things or even to be clear-sighted in recognizing the remedies.

THE ATTITUDE OF THOSE IN AUTHORITY.

There has always been danger in the very nature of the work that college authorities perform in this country that they become rather the casuistic apologists for what is, than the strong advocates of what ought to be. Even though troubled for a time about things they would have different, they learn to temporize, then to excuse, next to defend, and finally to champion and praise.

Many of the rest of us,—if under the same influence and pressure as these college authorities are subjected to,—would probably have shown weaker knees and more faltering tongues. What they need, to stiffen them up, is plenty of plain truth from the newspapers and many heart-searching letters from indignant parents.

Parents have been by all odds too modest. They have been a little browbeaten by the authoritative tone of the academic heads, who do not like to have their own especial field invaded by outsiders. The simple fact is that these leaders in the world of school and college and university are very human persons, whistling hard to keep up their courage in the midst of problems that frighten them a good deal. When you come to know them well they will confess to you what a double life they are leading,—with their own personal convictions all in favor of clean, simple, faithful, quiet, obscure school and college methods, while they are driven against their wills, by the strangely blended forces of a transitional period in American life, to the blaring leadership of movements for the aggrandizement of their institutions at the expense of what makes for real success.

THE TENDENCY TOWARD LUXURIOUS LIVING.

At this very time, when the drift of American life toward luxury is harmful,—and when the college is precisely the one typical institution that should insist upon bringing high-minded boys together upon common grounds of wholesome simplicity and democratic brotherhood,—the colleges are allowing themselves to be invaded by aggregations of social clubs and luxurious cliques which make the youth of twenty an experienced club man,

accustomed to touch the bell for the lackey who brushes his coat or brings him his cocktail. All academic leaders who are not hopelessly blinded, understand how life in a series of fraternity houses or social clubs fringing a college campus may militate against the best purposes for which American boys are supposed to be sent to college.

And these college leaders would be glad if reform could be made. But they lack the power to face and destroy these abuses that to so great an extent are harming college life. It is ridiculous that a great university should be dominated not by its authoritative officers and those who make its scholarly and intellectual fame but by undergraduate sentiment in harmful and even vicious phases.

The abuses of fraternity and society systems at some institutions are so glaring that they are evident to all observers. The exclusive groups, while sometimes harmful to their own members, are often cruel in the pain they inflict upon those who feel themselves shut out. In some of our colleges so keen is the feeling in undergraduate circles that to be left out of certain privileged organizations is to have the whole college period poisoned in its memories.

KEEP THE COLLEGES TRUE TO THEIR FUNCTION.

The so-called "Harvard man" is, in fact, the undergraduate cub whose presence at Cambridge, to the number of several thousand at a time, is the one thing that stands in the way of the full evolution of what ought to be the most brilliant and productive university in the world. The obvious remedy, which is simply to get rid of the undergraduates altogether and send them back home to be disciplined and trained, is, of course, quite too drastic to be suggested in view of the present conditions of topsy-turvy, Alice-in-Wonderland college development in this country.

But at least the mere colleges, that mean to be faithful to their true work, should be compelled by the force of public opinion to keep themselves clean and decent. They should be made relentlessly to drive out the youths who are luxurious and idle,—even if not conspicuously immoral. Universities are places for freedom. They assume that their students are men, with no possible reason for being in the university except to pursue the ends of scholarship or professional training. But colleges, like preparatory schools, should

be places for the training and discipline of immature youths, who have not as a rule found their bearings as men.

In colleges, the whole purpose of training is set at naught if excess or specialization in anything, even in intellectual work, interferes with rounded development. For very much the same reasons as at West Point or Annapolis, regulation in our colleges is desirable, even if not to the same extent. Such practices as hazing when left unregulated lead to great evils.

THE ADMISSION OF STUDENTS TO COLLEGE.

The habits formed in the college period will usually dominate the young man's future life. In the main, let us admit with candor, college life is not so far from what it should be that it is to be shunned rather than accepted with all its risks. But why not eliminate some of the risks? It is the duty of the college to admit only the young man who ought to be in the institution for proper reasons. Entrance examinations at present are ridiculously conducted, and are a matter of grave abuse. Students should not be admitted to college on the strength of their answers to scholastic questions on sheets of paper. Every student admitted to college should be looked over personally and talked with by some of the leading authorities of the institution. This test should count for at least as much as the written examination. Once admitted he should be carefully helped to find a well-proportioned scheme of study and,—what is just as important,—a well-proportioned use of his entire time.

SUPERVISION IS DEMANDED.

In other words, the college is for the students, and not the students for the college. Parents have a right to demand that the supervision of the life and work of their boy at college shall be a complete and well-rounded supervision, that is never relaxed. When the college authorities neglect such supervision they are not doing their work properly, and should be treated as we treat negligent officials in other institutions. Anything in school or college life that subordinates the real welfare of the individual student to the supposed glory of the institution itself is vicious. And anything on the other hand which looks like yielding to the tendency of student bodies to dominate their colleges and to run riot through false enthusiasms and misguided instincts is also vicious.

The passion for solidarity and for some

common ground of interest is indeed strong in student bodies, and is not vicious in itself. This passion accounts in part for the exaggerated enthusiasm that accompanies the combats of the muscular group who become the garlanded victims of so-called athletics. Naturally, boys are young democrats with many common impulses. When wealth and luxury, flaunting vice, and the spirit of shoddy American aristocracy break up college solidarity into cliques, the wild enthusiasm for the prowess of the athletes gives some sort of substitute, though transient, for what ought to be a constant and unified college spirit.

Nothing is bad in itself, but excess is bad in all things; and excess is of all things what colleges should most faithfully check and oppose. The college should be a place where life is regulated and controlled. It should not be a place where, in many aspects, life is at times more barbarous than that which the police try to break up among the "gangs" of the hoodlum element in our cities.

CRAZE FOR INTERCOLLEGIATE ATHLETICS.

The authorities of our colleges have permitted the growth of a furor for exciting public contests that makes the muscular athlete the worshiped idol of college life, and obscures the leader in brains and scholarly work. At one period the colleges fell far short of their duty in taking care of the physical health of the students, and nothing was more common than cases of so-called "breaking down from overstudy." Nowadays, the student who knows the elementary principles of hygiene and sensible living can do all the study that could possibly be asked of him without the slightest injury to his health. A recognition of the fact that colleges had cared for intellectual and moral advancement, and had forgotten the health of the student, led to a movement for supplying each college with a gymnasium and a physical instructor and to the encouragement of so-called athletics.

Athletics naturally led into the field of recognized sports; and such sports as rowing, baseball, and at length football led not merely to competitions within the college itself but finally to intercollegiate games. For a good while there was great skepticism about the desirability of intercollegiate contests. It was evident that they led to many abuses. There was a tendency to commercialize and professionalize sport, so that the interest which should have been felt in seeing that

every student indulged in his full share of exercise and of joyous play at out-of-door games, began to concentrate itself upon the fortunes of the baseball or football team.

The passion for warfare is natural enough and needs no explanation. The spirit of contest, of belligerency, of hard fight, of determination to be the winner and to put the other person in the position of loser, is a natural inheritance among the young men of our European races. Everybody must agree that such a spirit exists. There will be marked disagreement on the question how far such a spirit ought to be encouraged. Some people will decide a question of that kind on theoretical grounds, but others will try to decide in the light of experience.

It is fast growing to be the opinion of thoughtful people outside of academic circles that the mania for sports and contests of physical prowess in our colleges and schools has gone so far that it constitutes an evil of great magnitude. One of the reasons for the intensity of the devotion to football, for example, as a type of the intercollegiate competition, is to be found in the great size of the undergraduate body and the great prominence of the leading institutions in the social sense. College loyalty has to express itself in some form or other, and ardent devotion to the success of the college team in its contests with other colleges comes to be the easiest form of common expression among a great mass of students who can find no other rallying point.

WOMAN AND THE COLLEGE HERO.

A natural consequence of the intensity of this feeling is the undue responsibility placed upon the members of the representative teams. The football players are made to feel that upon them chiefly depends the glory or the disgrace of their college. So overwhelming is this feeling that it becomes a veritable obsession. Members of the faculty and of the board of trustees and all the old graduates become infected with the craze.

Women are especially susceptible to epidemic hysteria of this sort. Their influence is even worse than that of men in driving the players to that attitude of false heroism which would make any of them willing and glad, not merely to break his nose or his collarbone, but to lay down his life on the football field. They are doing it all for the glory of the college and the admiring applause of the score of thousands of well-dressed girls on the bleachers who, all unaware to them-

selves, have become tainted with that wretched passion for dangerous gladiatorial combat that takes the fair women of Spain to the bull-fight every Sunday afternoon.

FOOTBALL—THE PARENTS' PROTEST.

The time has now come when the opinion of the typical academic person on the subject of football is without value, because he is more or less affected by the prevailing mania. The average parent, as we have said, has been far too silent. He has had his misgivings about the way our colleges are run, but he has felt that he ought to defer to the professional educator's opinions.

The consequence is that parents who have brought up their big, strong boy to the college age, and would like to have him become both a gentleman and a scholar, find that the exigencies of the college to which he is sent require that he and all their plans for his life be sacrificed upon the altar of the institution's glory on the field of athletics. Sometimes, though rarely, the big football player who has been turned into a professional athlete, and victimized through his college course, escapes the permanent impairment of his health and gets out into the world with as good a chance as the men who have not played football,—that is to say, with as good a chance for reasonable immunity from physical ills.

The college presidents are wont to tell us that very few football players are injured, and that the game upon the whole makes for the physical well-being of those who play it. But the old football coaches, who really know the facts far better than the college presidents, will tell you in confidence a very different tale. From the standpoint of the college president, who looks at the students in the mass and statistically, it is easy by a sophistical kind of reasoning to show that more boys are drowned by reckless canoeing than are killed in football.

But the comparison has no relevancy whatsoever. The parent is not bothering about the law of averages, but is wanting to know whether it is really his duty to allow his son to be diverted from study and from many other innocent and agreeable pursuits, in order to shed luster upon the college and have his picture printed on the sporting page of all the metropolitan newspapers alongside of the pictures of Jack Johnson, the negro pugilist heavy-weight, and the favorites of the world of professional baseball.

FACTITIOUS HEROISM.

From the standpoint of the young fellow who struggles in the mass plays in the presence of 40,000 bellowing and screaming spectators, the great climax of human life has been reached. Here is the moment of supreme effort. All training, from the kindergarten up, has led to the brutal scramble in which men's lungs are crushed and spines are broken; and all future life must be lived in gray lights and obscurity when compared with the brilliancy and grandeur of this supreme moment.

It is a pathetic thing to take anybody's fine, strong boy and make a fool of him in this way. Parents should rise up with wrath and with sarcasm, and call for an end of unseemly gladiatorial contests in the pretended name of a friendly competition. The days of the great games in the vicinity of New York, as all policemen know, mean days and nights of disgraceful orgies. Again and again, in this very year's play, men have been killed outright; and hundreds, if not thousands, have been injured.

It is a disgrace that the school life of boys in their teens should not be led in quiet, and in academic obscurity. It is an abomination that the sports of our American college boys should be turned into a tumultuous public spectacle of the character of Derby Day in England, the Grand Prix at Paris, or a contest between world champions in pugilism where police can be evaded and crowds can assemble. Yet nearly a month before the Yale-Harvard football game of November 20 it was said that there had been applications for 125,000 tickets and there were seating accommodations for less than 50,000. On occasion of the Princeton-Yale game at New Haven, the railroads were obliged to announce that they had provided for all the extra trains they could possibly run without completely blocking up the traffic.

THE CHARGE OF UNSPORTSMANLIKE PLAY.

This blare of vulgar publicity is, in all its reflex influences, demoralizing to college life. It puts the emphasis upon wrong things and cheapens the right things. It involves all kinds of college athletics in a network of commercialism that thoroughly Tammany-izes what ought to be decorous and fine, like contests in the English universities.

It is not merely that football as now played is a hazardous game, in which the chance of physical injury is too great to be tolerated by

wise parents, but the game as played is also a demoralizing game because it is often unsportsmanlike. In a game of tennis no one thinks of taking advantage of an opponent by any sort of cheating. But in the great contests at football the one object is to win by all possible means, and there is always an endeavor to beat the rules. If there is a star player on the opposing team, there is apt to be a definite intention to "put him out of the game" by one means or another.

A college president whose eyes are open to the evils of the game remarked the other day concerning certain recent fatalities that these men had been killed intentionally. He hastened to explain that he did not mean that there was any deliberate intention to produce fatal results, but that there was probably a purpose to injure the opponent sufficiently to "put him out of the game." All of this has a very ugly sound, and it will be bitterly denied in some academic quarters. But let it stand as the expression of a very experienced and able observer.

COMBAT RATHER THAN SPORT.

Still another objection to football as a game, that should be brought to the attention of the average boy, is its lack of any permanent usefulness as a means of recreation. It is not so much a sport as it is a form of physical combat. The boy who learns to play tennis well may hope to enjoy it until he is sixty years old. He may play golf until he is ninety. He may enjoy pedestrianism until he is a hundred. The pleasures that come from experience in the woods or on the water have great variety and endure throughout life. Even baseball is a game that men of forty or fifty can at any time take up in amateur fashion with their own growing boys. But football, which can only be played by those of extreme muscular development and hard training, is more likely to unfit a boy than to fit him for the exercises and pleasures that will last through his life. The game of cricket is played with skill and pleasure by gentlemen in England till they reach the age of threescore and ten; but nobody with any sense at all thinks of playing football after he gets out of college.

INFECTION OF THE PREPARATORY SCHOOLS.

Among the incidental evils of the football mania in the big colleges may be mentioned the transmission of the craze to the preparatory schools. Many of these schools are organized simply upon the football basis. They

press football as a means of gaining place and standing among the competing institutions of their class. They become fanatical on the subject of football, make a sort of religion out of it, and at length reach the point where they isolate the boy whose parents think it best that he should confine himself to other sports.

At one time they were content to have a single school team, which played against other secondary schools of the general region. Now they have a second team, and in some cases a third, all touring the country incurring greater or less physical injuries and losing the spirit of quiet study,—for the sake of advertising and pushing the school that makes a fetish of interscholastic combat. Some of them have gone so far as to take the little children of from nine to twelve, who enter as boarding or day pupils in junior departments, and train them,—not merely to play football for their own afternoon recreation,—but to go forth twenty or forty miles waving the banners of their school to meet on the gridiron the infant champions of some other institution devoted to the cause of football.

And school opinion, beginning with the principal and the masters, has reached such a stage of mania and obsession on this subject that the poor infant of ten or a dozen years whose parents will not let him go forth on Saturdays to join in these interschool contests is pitied, isolated and made unhappy, and taught to believe that his parents are trying to make a mollycoddle of him.* In the public high schools, also, the football craze has had many victims, and school boards are beginning to act under pressure of public opinion. The anti-football attitude of the school authorities of New York City last month is an important indication of the changing tide.

Let us repeat, then, that it is quite time for the parents and the general public to have their innings. The interscholastic games are carried to great excess, they interfere with school work, they injure health and morals, and they should at least be closely restricted. There is a great deal of housecleaning needed in many of our educational institutions at the very moment when the Carnegies, the Rockefellers, the Kennedys, the Sages, and others are pouring out their private millions to support the cause of learning, and when, far more importantly, the taxpayers are being called upon for increasing sums to support education all the way from the university down to the kindergarten.

EFFECTS OF FOOTBALL REFORM AT COLUMBIA.

BY A CLOSE OBSERVER.

IT took a good deal more moral courage than is generally appreciated for the academic authorities of Columbia University to discontinue the game of intercollegiate football as they did in 1905. In taking this step they knew perfectly well that they laid themselves open to bitter attack and criticism, as well as to serious misunderstanding of their motive and purpose on the part of students, alumni, and many outsiders of influence.

So completely was the academic world under the influence of the football mania, that the devotees of football believed that they could break the will of any individual or body which attempted to stand in their way. The public, eager for large spectacular contests, spiced with the element of physical danger, did not want the thing stopped. Highly paid coaches and managers and the manufacturers of football supplies, who have pushed their business from the big universities to the small colleges, from the small colleges to the high schools, and from the high schools almost to the kindergarten, were banded like a well-organized trust against anything which might interfere with their sales and profits.

The supporters of other academic sport defended football, often against their better judgment, because the enormous income from gate receipts, which it provided, saved them from the disagreeable necessity of paying themselves for the forms of sport which they preferred, but which, like rowing, could produce no gate receipts at all, or, like basketball and baseball, only moderate receipts as compared with those of football. It was against this whole body of opinion, vested interests, and unacademic practices that Columbia University set itself. That the step it took would be unpopular in high degree was certain; that it was right, was equally certain.

The cynical prediction was freely made that Columbia would have to back down from the position it took, because it could not stand the unpopularity and the criticism which the act called forth. The contrary happened. The Columbia authorities stood

their ground like men and patiently answered the attacks leveled against them by appeals to reason which were, however, but little heard.

It is four years since football was abolished at Columbia, and there are now no undergraduates left there who have known or seen the demoralizing influence of intercollegiate football. It is the unanimous testimony of Columbia professors that the autumn weeks have now, for the first time, become quiet, orderly, and abundant in work. Previously serious academic work began after Thanksgiving. Football dominated everything until that day. The tone of the student-body has improved, and now on the university exercising ground, South Field, there may be seen every afternoon hundreds of young men actively engaged in sports, in games, and physical exercise, where, during the football period, there were but twenty-two rushing and tearing at each other, while a few score or few hundred stood on the side lines watching and cheering.

Football makes athletics impossible. Athletics cannot flourish until football is gotten out of the way. The rational and regular participation in outdoor sport by hundreds of students is an end devoutly to be wished for. It cannot be obtained, however, so long as the body of the whole student interest is focused on the gladiatorial struggle between two trained bodies of combatants, leaving to the students as a whole nothing to do but to watch. The alternative is between the real and the vicarious. Football for the mass of American students is a vicarious participation in athletics.

It is deplorable that Columbia's example has not been followed by other large institutions. President Eliot talked and thundered against football, but Harvard did not uphold him. Other college presidents have gone to the length of defending football as a moral agent. One hardly knows how to deal with men who take such an attitude. Columbia has gained for itself a proud pre-eminence by an act of conspicuous moral courage, good sense, and high intelligence.

LEADING ARTICLES OF THE MONTH.

THE PRESENT NET RESULT OF WOMAN'S "EMANCIPATION."

THE morrows of victory are not always without embarrassment, nor without remorse; and, according to discussions in its journals, leagues, and congresses, feminism seems already to be suffering from a certain disaffection, an embarrassment arising chiefly from its conquests, writes M. Gabriel Aubray in the *Correspondant* (Paris). There were "four citadels the shadow of which crushed woman, four Bastilles whose destruction was necessary in order that she might be free and might spread her life in the sun that shines for all. In three of these feminism has made breaches and poured her troops. . . . And now, deceived by the poverty of the results, exasperated by the bitterness which most of them have entailed, it hesitates, divided between the violent desire to press the charge to the utmost and to demolish everything and the terror of being again duped and of overwhelming its troubles with new ruins." (1) Easy access to the liberal professions had been claimed for women. With literature and the fine arts already open to them, they had occupied at will instruction, law, and medicine. A well-informed woman has said that in those directions they have miscalculated, and that the exceptional success of the few has poorly compensated the sufferings of the many who have served only to augment the ranks of the intellectual proletariat. (2) For the working woman was needed equality with the working man in the matter of wages, and conditions of labor adjusted to her weakness; it has been found by experience that feminine competition has lowered the price of labor, and that the sole equality to which she hastens is that of misery, envy, and social hatred. (3) Finally, it is in howling against "man's law" (*la loi de l'homme*) that the abrogation of the indissoluble marriage is claimed as a liberation for woman; now, all thoughtful feminists recognize the fact that woman is more often than man the victim of divorce; and they are terrified to see the others, the infatuated, put their last hope in its "enlargement." Alone, the block of

political rights remains unbroken, which permits tumultuous manifestations in the streets and tempts the collection of mobs in favor of "the eternal oppressed." But the grand result, when woman shares with man the right to vote, is already disabused of its derisive sovereignty, disgusted with universal suffrage. Hence, in spite of the exasperation of certain fanatics, and of apparent agitation, at the depths of feminism there is an unmistakable lassitude. When Mme. Marc Hélys, from her investigation of feminism in northern countries, concludes that "among all the successful women workers that I have seen there is not one who would not be ready to-morrow to renounce her career for love and a home," she marks, as it were, the end of the modern Utopia of the enfranchisement of woman. But here, also, as in nearly all the revolutionary enterprises of the century, with an obscure fear of bankruptcy, the two-fold temptation is felt,—to return to old conditions or to throw oneself recklessly into the van, in a supreme "risk-everything," and to run blindly toward the abyss.

In the face of this movement Christian thought, "uncertain as to its wisdom or its folly, has become perplexed and maintains different attitudes. On one side, the Abbé Sertillanges, in his *Féminisme et Christianisme*, goes as far as he lawfully can in favor of the equality of the sexes and of liberalism for all." Another Catholic, M. Théodore Joran, the crowned author of *Mensonge du féminisme*, wages against feminism, in his eyes a veritable monster, a war without mercy; he strikes off one by one the heads of the hydra and grants no grace to those who seek to save themselves by wearing on their foreheads the label "Christian feminism." For him, feminism is above all "a war against marriage," "separation of the sexes," "feminine egotism, revolt, libertinage, anarchy"; it is, therefore, essentially anti-Christian."

Concerning the relation of Christianity to woman, M. Aubray says:

We see that Christianity has sought to assign to the damsel as well as to the matron, to the

widow as well as to the wife, the condition which is the most secure, the most dignified, the most agreeable that it has hitherto appeared possible to accord to her. We see that it has incorporated in imperial moral laws its principles of justice for woman, ordaining to the child that it honors his mother; to the young man to choose his fiancée, in full liberty of love, for her charms and her virtues, not for her fortune, and to labor if need be twice seven years to win his Rachel; to the husband to love his wife as himself, to respect her in the capacity of mother, and to be faithful to her, come what may; and this is the law of the man. But to the young girl it offers the free choice either to remain unmarried,—without incurring thereby the contempt of the world,—or to exercise in full confidence her energies of love and of maternity in the securities of indissoluble marriage and in the inviolable sanctuary of the family.

He holds that society, no longer animated by the spirit of the Gospel, has set up on its altars a monstrous idol of liberty, and in liberty's name has freed labor as well as love from all moral and religious discipline, abandoning the workwoman in the factory like

the courtesan in the street, without regard to the result of the battle of the sexes against nature, in which, despite the great injury done to man by reason of her competition, it is the woman who is finally vanquished, ruined, torn from the sweets of home, and robbed of her children.

Marie Corelli Makes a Suggestion,

In a long, intense article in the *London Magazine*, discussing "The Problem of the Suffragette," Miss Corelli suggests the following test of woman's fitness (not "right," she adds) for the ballot:

Let the suffragettes set up a woman's parliament, as close an imitation of Westminster as possible as regards constitution, and for three years handle every night the same subjects as are being handled at Westminster. At the end of these three years, if the women have brought more logic and intellect, higher perception and clearer reasoning powers to bear on the problems debated than have the men at Westminster,—why, let them have the vote by all means, if it will make them happy.

NEW YORK'S RECOGNITION OF SOCIAL NEEDS.

TAKING the country generally, it must, we think, be admitted that the charges of apathy or indifference on the part of the citizens toward municipal work for social betterment are only too well founded. If the things that ought to be done by the local government are left undone the townspeople are in many cases apathetic; if the city authorities do well those that should applaud are indifferent. As Mr. Lawrence Veiller, writing on this subject in the *Survey* of November 6, observes: "Were it to be announced that Mr. Carnegie or Mrs. Sage had given a fund of \$5,000,000 to be devoted to the prevention of tuberculosis, the news would be sent over the wires throughout the country and reported to the nation in telling headlines. When the city government does this, however, it is accepted as a matter of course and little attention is paid to it." Mr. Veiller's paper merits careful reading by every one who has the welfare of his own city at heart.

New York has just gone through two campaigns,—“a political campaign, heated and strenuous, which has absorbed the public interest, and along with it, attracting comparatively little attention; an important budget campaign vitally affecting the welfare of

the city.” The commercial metropolis has now a population of 4,000,000, and is spending on its service \$163,000,000 annually,—as the man in the street would say, a pretty big proposition. As Mr. Veiller remarks, the whole community, both non-taxpayers and taxpayers, are deeply affected by the way in which this \$163,000,000 is spent.

So long as there are 28,000 unsupervised cases of tuberculosis in the city's tenements without the advice of a physician, it vitally concerns every one whether money be spent to reduce these sources of infection or whether it be spent for the purchase and maintenance of expensive automobiles for city employees. So long as there are 100,000 windowless, dark, interior bedrooms in tenements, it is of vital importance whether money is spent to bring light and ventilation into these breeders of disease or whether it is wasted in excessive prices paid for real estate. So long as the sick and helpless in the city institutions are subjected to the debasing and brutal care of drunken and incapable employees, it is of vital moment whether city money is spent for adequate hospital service or is wasted on excessive fees paid to commissioners in condemnation proceedings. The issue cannot be avoided. The social workers of the city must face it and the community must necessarily be made aware of it and the opportunity be given it to choose for what purposes its money shall be expended.

All through the past summer and early fall certain organizations "interested in social work" in New York City,—notably the Committee on the Prevention of Tuberculosis and the Tenement House Committee of the Charity Organization Society, the State Charities Aid Association, and the Public Education Association,—made the city's budget "the subject of careful and searching study." Also a group of social workers "interested generally in the whole field of social effort has given attention to the budget, so far as it relates to social needs." Social workers, as in past years, presented to the city departments in which they were especially interested comprehensive recommendations with regard to the needs of those branches of the city government, and have proceeded through every stage of the situation to urge those needs upon the different city authorities. The city voted a budget for 1910 of \$163,130,270.37, an increase of \$6,585,122.23 over the current budget. We summarize from Mr. Veiller's paper a few of the more important results, which may be expected to follow this increase in the fields of social work.

The Health Department was allowed an increase of \$263,500, practically all of which was granted for the extension of its tuberculosis work. With this money the Department will be able to do what it has hitherto been unable to accomplish. Every new case of tuberculosis will be visited by a nurse, the patient will be seen personally and instructed what to do. He will be cautioned against infecting the members

of his family and his neighbors. Every precaution will be taken to improve the condition of the patient and to minimize the chances of his infecting the community. The 20,000 "not found" cases will be looked up. Every time a tuberculosis patient moves, the apartments he has occupied will be disinfected before a new tenant is permitted to move into them.

The Department of Education found itself with \$271,443 at its disposal for new evening high schools and elementary schools, new vacation schools, evening roof playgrounds, twenty additional truant officers, illumination of yards in twenty-three school buildings that they may be used as evening recreation centers. Generous provision for more teachers was also made.

The Department of Public Charities received an increase of \$176,606.50. This will admit of the expenditure of a substantial amount for the improvement of the lower grades of the hospital helper service, which "for many years has been a disgrace to the city."

The Board of Trustees of Bellevue and Allied Hospitals has secured an additional appropriation of about \$15,000 to meet the tuberculosis needs of the three main clinics connected with that board,—Bellevue, Gouverneur, and Harlem. This additional appropriation will provide more adequate salaries for physicians at these clinics, maintain the ferryboat day camps, and supply a few additional nurses where they are most needed.

The increases granted fell far short of the amounts asked for. "No sane social reformer, however, expects to accomplish at one step all the reforms in which he is interested. Progress in municipal affairs necessarily comes by slow degrees,—a step at a time. A very long step has been taken at this time."

WHAT WILL LORD LANSDOWNE DO WITH THE ENGLISH BUDGET?

IN the November number of the *English Review of Reviews* Mr. W. T. Stead has another of the character sketches which are welcomed by his readers on both sides of the Atlantic. The latest subject of Mr. Stead's pen portraiture is the Marquis of Lansdowne, whom he regards as unquestionably the "man of the moment" in the United Kingdom. Lord Lansdowne is "the nominal leader of the Unionist majority in the House of Lords."

There are six hundred members of the Upper House, of whom about sixty are Liberals. The remaining five hundred and forty Peers, temporal and spiritual, are supposed to be followers of the noble Marquis. They are obedient

enough when he summons them to mutilate or to murder some Liberal bill upon which the House of Commons has bestowed the patient labors of a session. But will they obey him when he summons them to respect the unwritten law of the British Constitution and to pass the budget? That is the question of the hour.

At the present moment, however, the leadership of the House of Lords appears to Mr. Stead to have been wrested from the hands of Lord Lansdowne by Mr. T. L. Garvin, "a comparatively unknown journalist" and "the Gadfly of the Opposition."

What we are witnessing at present is a duel to the death between Lord Lansdowne and Mr. T. L. Garvin. . . . Mr. Garvin has none of the advantages of Lord Lansdowne. He is not

a patrician born in the purple. He is a plebeian, reared no one exactly knows how. He has no long record of Ministerial services behind him. He has never sat in either House of Parliament. . . . Mr. Garvin, formerly editor of the *Newcastle Chronicle*, afterward editor of the *Outlook*, is now the chief leader-writer of the *Daily Telegraph*, the inspirer of the *Daily Mail*, the chronicler of the *Fortnightly Review*, and the editor of the *Observer*. He is a man of unquestioned ability, of enormous energy, of splendid self-confidence, and of fanatical enthusiasm. . . . By his zeal, by his perseverance, and by his passion he has goaded the Peers into incipient revolt against their leader. It seems absurd, but it is most true, that at the present moment of writing Mr. Garvin has the majority of the Unionist Peers at his back.

Mr. Stead assumes that Lord Lansdowne is opposed to "the violent and revolutionary course to which the Peers are incited by Mr. Garvin"; for in his character sketches Mr. Stead feels bound "to portray a man as he appears to himself at his best moments, and not as he appears to his enemies at his worst." And having due regard to Lord Lansdowne's political career "it would be unpardonable to impute to him even a passing sympathy with the revolutionary policy of rejecting the budget." At the same time it is undoubtedly the fact that his Lordship has frequently "shown himself capable of the grossest miscalculation of the forces with which he has had to deal in the past." In his administration, "both at home and abroad, there has been a tendency to under-rate the strength of his opponents." Mr. Stead points to Lord Lansdowne's action with regard to Ireland, his career as governor-general of Canada, as Viceroy of India, and as Secretary of War at the time of the conflict with the Boers in South Africa.

Mr. Stead gives voluminous data of Lord Lansdowne's life, from which we condense the following:

Lord Lansdowne was educated at Eton and at Balol College, Oxford. He had only just attained his majority when his father died, leaving him, at the age of twenty-one, heir to all the wealth and responsibilities of the marquissate.

Mr. Gladstone when he was called to office in 1868 made him a Commissioner of the Exchequer of Great Britain, a post which he held for four years. In 1872, when Mr. Cardwell was carrying through the scheme of Army Reform suggested by the Franco-German War, Lord Lansdowne was appointed Under-Secretary for War. He stayed at the War Office till the fall of the Gladstone Ministry in 1874, and remained in opposition until the return of the Liberals to power in 1880. He was then appointed Under-Secretary for India, a post which he promptly threw up when the stormy agitation of the Land League compelled Mr.

Forster to bring in a bill by which a stay was placed upon evictions by providing that compensation for disturbance should be paid to the evicted tenants.

Lord Lansdowne later was appointed Governor-General of Canada, a post which he held for five years. He began well, winning golden opinions from the French Canadians by responding to the Quebec address in French, and his administration was on the whole successful. His Viceroyalty was notable for two things,—the suppression of the Riel Redskin half-breed rebellion in the Northwest and the completion of the Canadian Pacific Railway. He also undertook the settlement of the Canadian Fisheries question with the United States. Lord Lansdowne in those days was a Liberal Imperialist, sane and sober.

Whig though he was, his capacity, proved in Canada, and his high rank in the peerage, led Lord Salisbury to appoint him Viceroy of India in 1888.

As a Viceroy he did many things well and few things ill.

He called into existence the Imperial contingent from the Native States. Under his Viceroyalty laws were passed for the protection of animals from cruelty and Indian girls from violation under the marriage laws before the age of twelve. He generally governed like a prudent Whig of the old school.

"During his term of office in India," says a eulogist in *Blackwood*, "the area of actual irrigation was increased by nearly two million acres, the famine codes were revised with the utmost success, some four thousand miles of new railway lines were opened for traffic. And while no practical details escaped him, while by the exercise of a simple tact he was able to soften the asperities of caste and religion, he neglected nothing which should safeguard our Indian Empire."

Lord Lansdowne had been away in Canada when the great schism tore the Liberal Unionists from their allegiance to Mr. Gladstone. He took no part in English politics until his return from India in 1894. He then allied himself actively with the party to which he was bound by family sympathies and territorial interest. When Lord Salisbury formed his last administration he offered the War Office to Lord Lansdowne in 1895. He accepted it, and reigned in Whitehall for five years. He was a good enough War Minister for an empire that remains at peace. But for an empire which needs occasionally to fight for its existence, and which is very often plunged into unnecessary wars, he was,—not so good.

Lord Lansdowne never woke up to realize the possibility of war until too late. He refused to admit the possibility that the Orange Free State would join forces with the Transvaal. He was not on good terms with Lord Wolseley, his commander-in-chief. The army for which he was responsible broke down beneath the first rough touch of actual war against a white-skinned race. It had emerged victoriously from the war in the Soudan. But the Boers were of tougher metal than the swarthy sons of the desert.

Disregarding the adage about not swopping

horses while crossing a stream, Lord Salisbury changed his war ministers in the middle of the Boer War. Mr. Broderick replaced Lord Lansdowne and Lord Lansdowne took Lord Salisbury's place at the War Office. From 1900 till the fall of the Unionist Administration Lord

Lansdowne directed our foreign affairs in such a fashion as to win the praise of his political opponents. "He was glad to acknowledge," said Mr. Asquith, "as he believed all Liberals would, that Lord Lansdowne had been a successful Foreign Minister."

INTERNATIONAL LAW AND THE NORTH POLE.

SO much discussion has been aroused in the press and so much speculation has been rife regarding the claims of the United States to what may conveniently be termed north-polar territory that it will be interesting to the readers of the REVIEW to learn just what the law of nations has to say upon the subject. In the October number of the *American Journal of International Law* Prof. James Brown Scott sets forth the pros and cons of the matter in a singularly lucid paper and, moreover, in phraseology intelligible to the "most unlearned in the law." It appears that as regards the Arctic regions Colley Cibber's dictum, "Possession is eleven points in the law," does not hold good. The nailing,—metaphorical or actual,—of the Stars and Stripes to the North Pole, while a dutiful and praiseworthy enough act on the part of an explorer, in no way gives the United States legal title to the new-found territory. Professor Scott reminds his readers that "title by discovery applies to land, not to water";

for it cannot be maintained that the discovery of an open sea conveys ownership of the water or indeed to the lands washed by it, as it is universally held that the open seas beyond the limit of territorial waters are insusceptible of appropriation. In like manner, it would not be asserted that the discovery of an iceberg or a floating field of ice conveyed title to the land upon which the iceberg happened to rest, or in whose neighborhood it floated to the sea. In the technical sense the conveyance of water within the defined limits would not transfer the land covered by it, whereas the conveyance of the land covered by the water would pass title to the land as covered by the water. Therefore we may eliminate from consideration polar discoveries disconnected with land, unless we are prepared to insist that a different law obtains in the Arctic regions and that icebergs and ice-floes may not only be acquired but pass title to adjoining land.

The discovery of rivers, of course, "gives title to the lands washed by them"; but that is "because of the necessary and close connection between the land and the water and the evident intent of the discoverers to annex the land, using the water only as a

means of identification. As Professor Scott points out, discovery of unoccupied land may be wholly irrespective of subsequent occupation, or it may be with intent to occupy. Although "in the centuries immediately following the discovery of America, title was claimed by mere discovery,"—international law "gives no countenance whatever to the claim that mere discovery alone and by itself vests title. At most, discovery creates a presumption, an inchoate right, which, followed by occupation, ripens into title." And the original priority and the right springing from it would be regarded as renounced if the discoverer failed to occupy "within what may be considered in view of all the circumstances a reasonable time."

In the view of international law "discovery is a political or sovereign act, and should be made by a navigator duly commissioned by the authority of the State in whose behalf he acts."

Discoveries due to private initiative do not of themselves convey rights; for as a private citizen or a commercial company which he represents is not a sovereign body, neither he nor it, through him, can acquire the incidents of sovereignty. It would appear therefore that private expeditions do not acquire title to the land discovered, either for themselves or for the country of which they happen to be the subjects or citizens.

This fact has recently been recognized by the Dominion of Canada in fitting out an expedition formally to take possession of the islands in the Arctic Ocean adjoining the Dominion. Professor Scott admits that discovery within the Arctic regions has undoubtedly vested title; but, as he observes,

that is because the expeditions were under state control and discovery was followed not merely by a claim of sovereignty but were reduced by actual possession to title. Thus Iceland and Greenland have been and are Danish colonies. The territory watered by Hudson Bay passed into possession of Great Britain, and was administered as British territory until it was incorporated into the Dominion of Canada. The discovery of Tasmania and Australia are examples, not exceptions to the general rule; and Great Britain claims sovereignty over these ter-

ritories not by discovery but by effectual occupation.

In Africa the claim that discovery vests title has worked so unsatisfactorily that the powers have entered into an agreement that "occupation should follow discovery in order to vest title, and that even the intent to occupy should be notified."

With regard to polar territory, there is considerable difficulty in applying the present theory and practice of discovery and occupation.

Supposing that Dr. Cook reached the North Pole it is difficult to see how the United States acquires any title to the polar regions; and supposing that Commander Peary, an officer of the United States Navy, had been specifically detailed to reach the Pole, his expedition was, it would seem, one of adventure and scientific discovery not undertaken for the purpose of extending the sovereignty of the United States to the polar regions.

Professor Scott seeks to demonstrate the "justness and applicability" of his observations by a consideration of the Spitzbergen archipelago, concerning which he remarks:

Various nationalities have vied with each other in discovering and making known Spitzbergen. From the date of its discovery by Barents, its circumnavigation by Carlsen (1863), and its scientific exploration by Nordenskjöld, the claim of Norway and Sweden to sovereignty over the island has been urged, but this met in 1871 with the outspoken oppo-

sition of Russia, and in 1872 the two governments agreed formally that the region should remain as it had been, no man's land (*terra nullius*). The recent separation of Norway from Sweden has added a further element of complication, because the subjects of Norway claim a peculiar and preponderating interest in the islands by reason of the fact that the Norwegians may be said to be the only people who resort to them in considerable numbers. Certain coal-fields in the islands are worked by a British corporation, and an American company is at present exploiting coal in Spitzbergen. Therefore if Spitzbergen, notwithstanding discovery, occupation, and the assumption of sovereignty by Sweden is considered no man's land, it must be by reason of the fact that the voyages of discovery and the explorations made in the islands during the past two centuries were scientific,—undertaken without the intent of passing title.

To remedy this state of things as well as to render life, property, and the protection of the interests of the various nationalities in the islands more secure, Norway has called a conference of the powers interested in the archipelago to meet next year at Christiania "in order to establish a system of administration without, however, appropriating the islands to any one of the participating powers or changing the status as *terra nullius*. It would therefore appear that arctic discovery as such vests no title, and that the Arctic regions, except and in so far as they have been occupied, are in the condition of Spitzbergen,—that is to say, no man's land."

THE QUESTION OF THE POLES.

AN anonymous writer in the *Edinburgh Review*,—presumably the editor,—has an article comparing the greatest and most characteristic exploits at the two ends of the earth with regard to the motives which impel people to go into such uncomfortable places, the methods by which they meet the special difficulties of the regions, and the results which have been achieved. He says:

What may be done with a free hand by a man full of ability and confidence has been demonstrated this year by Mr. E. H. Shackleton. He was fitted for his task by the possession of great organizing power, a vivid imagination, the originality of genius in devising plans, and sufficient experience on which to base them, but not enough to make caution hamper his ambition.

Of the Cook-Peary controversy he has this to say:

When Dr. Cook's instruments and detailed records showing the observations and workings

have been submitted to the critical examination of some competent authority, it will be possible to form an opinion as to the truth of his claim, but not before. The same examination of instruments and records must be required of Commander Peary. . . . The moral of all recent polar exploration is that the best results have followed from the smallest and least expensive expeditions, organized by the explorer himself in the face of indifference or even opposition, and carried out by him with a voluntary and frequently unsalaried body of assistants.

There is a suggestive article in the *Fortnightly Review* entitled "The Polar Eskimos and the Polar Expedition," by Dr. H. P. Steensby, a Dane, who accompanied Dr. Cook on his journey from Greenland to Copenhagen. Dr. Steensby gives a lively account of the polar Eskimos, who only number two hundred all told. Dr. Cook considers the polar Eskimo to be the most intelligent of untutored mankind. He succeed-

ed because he became, to all intents and purposes, an Eskimo, one of the people whose whole life is spent in a perpetual Arctic expedition. Of Dr. Cook, Dr. Steensby says:

Although ten years younger than Peary, Dr. Cook is nearly as old an Arctic explorer as the latter. In 1891-92 he was with Peary's first expedition to Smith Sound. Unfortunately, Cook has never had the opportunity of publishing his own material. . . . During the homeward journey in the *Hans Egede* from Egedes Minde to Copenhagen together with Dr. Cook I con-

ceived the greatest admiration for his intelligence and fine grasp of the moral as well as the material culture of the tribes. We who traveled with him during the summer in the Danish West Greenland, and returned with him across the Atlantic, are all willing to bear witness to Dr. Cook's amiability and winning personality. As Dr. Georg Brandes exclaimed when he had been with him, "His manners and ways are American, and, intellectually speaking, it seems that some of the best-cultured qualities of the English type are to be found in his character."

AN ARMY OFFICER'S ACCOUNT OF THE BARCELONA RIOTS.

WHEN the riots occurred in Barcelona, in the month of July last, there happened to be in that city an officer of the United States Army, Brigadier-General H. A. Reed, who publishes a description of them, "from personal observation and reliable data," in the *Journal of the Military Service Institution* for November-December. The account differs from the ordinary newspaper narrative of the disturbances in that it records in "uncolored" language scenes actu-

ally witnessed. There is no attempt to make an impression on the reader, no evidence of a desire to weave a blood-curdling story out of events sufficiently startling to raise a thrill of horror by their mere recital.

SPANIARDS "OUTSIDE OF SPAIN."

Barcelona, as is generally known, is the capital of the province bearing the same name and of the district of Catalonia; it has a population of more than 600,000, and is the principal commercial port. The Catalans are "a distinct people, differing so much in their character of exclusiveness, brusque manner, sanguine nature, and peculiar customs from the rest of Spain that, by the latter, they are not classed as Spaniards,—they are outside of Spain." For the benefit of the uninformed, General Reed gives the following particulars concerning the measures taken to preserve peace in the province:

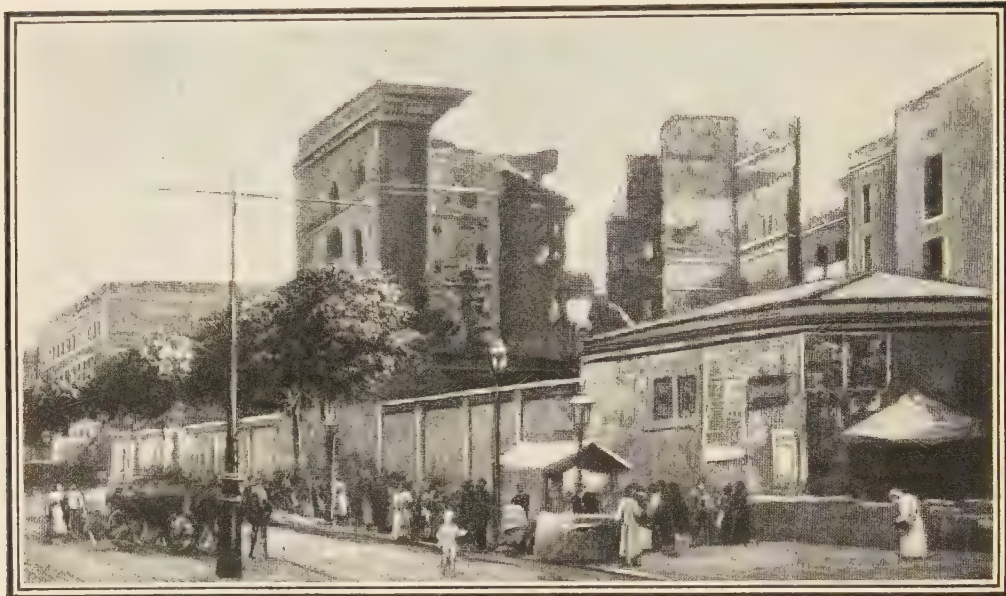
To maintain order in the province each municipality has its police and a detail of the *Guardia Civil*, a semi-military organization, with detachments of the regular army in the principal communities. There is both a civil and a military governor for the province, and each municipality has its *Alcalde* (mayor) and *Ayuntamiento* (council). Besides these, there is in Catalonia a force known as the *Somaten*, comprised of 30,000 civilians . . . it is armed; and the maintenance of peace, or, rather, lack of atrocities, in several of the outlying towns during the riots was due to its efforts.

The riots lasted from Monday, July 26, to August 1,—just one week; and the events of the first day are thus recorded:

Early in the morning of this day (the 26th) shots were heard in different parts of the city; they proceeded from all kinds of arms in the hands of men, boys, and the police and *Guardia Civil*. Small groups passed among the various factories and shops, persuading the workingmen



RIOTERS OBSTRUCTING THE RAILROAD IN CALLE ARAGON, A STREET IN BARCELONA.



ESCOLAPIOS DE SAN ANTONIO, BARCELONA.

(Extending one block and part of two others on the *renda*. It was a church convent and educational institution valued at about \$1,000,000.)

to join a general strike, to be of a pacific nature. As a rule the invitation was well received and the establishments closed. By 10 a.m. work was generally suspended, the groups increased in size, and many women were observed among them, wearing white ribbons at the breast.

The street cars, trying to circulate, caused frequent collisions between the strikers, the police, and *Guardia Civil*, there were shots exchanged, bugle calls, and more extensive firing,—a few volleys. The street cars were finally stopped, some cars placed across the track, and trolley poles broken; some private carriages were damaged. After 7 p.m., as given out officially, there were three of the *Guardia Civil* and eight police wounded, three strikers killed and several wounded.

At noon, owing to the serious aspect of affairs, there was a meeting of the city authorities, which resulted in the civil governor, Señor Ossorio y Gallardo, transferring reluctantly his authority to the captain-general of the province and district, Don Luis de Santiago.

During the day a railroad bridge at Terrassa,—twenty-five kilometers northwest of Barcelona,—was burned and a captain, a lieutenant, and a private of the *Guardia Civil* wounded in the attempt to prevent the disaster.

All newspapers suspended work. The night was comparatively quiet; but early in the morning of Tuesday, the 27th, it was readily observed that the strike which was to be for twenty-four hours only, and so understood by several societies that joined it, would continue. . . . All communications, except that with France, had been intercepted.

During the forenoon of Tuesday infantry patrolled the streets. The captain-general

issued an order to the effect that persons attempting to block the public way would be shot without warning. During the day a Jesuit establishment was attacked and successfully defended. As night approached convents and churches in different parts of the city were burning. The street firing was continuous, though somewhat ineffective owing to the gaslights having been extinguished. The night is described as "one of terror to the peaceful residents of the city." Thirty-four churches and convents were sacked and entirely destroyed; eighty-five others sacked and partly demolished; on Wednesday, Thursday, and Friday more shooting, further conflagrations, and effective work by the troops, especially the artillery. Saturday being pay-day of the workmen, it was agreed to pay all who should present themselves for work on the following Monday. This had a remarkable effect in tranquillizing matters. The residents were invited by the captain-general to resume their ordinary occupations, and one street railway resumed operations. The cafés began to open their doors. On Sunday, August 1, the city "began its resumption of normal conditions," and on the third "all were discussing the Barcelona riots of 1909 as things of the past." The number of killed and wounded among the troops, the police, the

Guardia Civil, and civilians as officially reported was much understated.

General Reed gives some interesting details as to the procedure of the rioters:

As a rule, the monks, friars, priests, and nuns that, in their own dress or disguised as peasants, had escaped from their church or convent, and sought refuge in the parochial buildings of a neighboring town, were ejected by the rioters and driven from the town. Some of the priests were inhumanly, even unspeakably, maltreated; they were the victims of the very incarnation of hatred. In Barcelona the incident which most attracted public attention was the barbarous treatment of the dead nuns. . . . The ruffians disinterred sixteen of these. . . . The losses by sacking were in many instances great, especially from the convents and colleges. . . . One mother superior lost in convertible bonds \$40,000. . . . By the fire very valuable works of art and scientific instruments were destroyed, and the Padres Escolapius lost a magnificent library. . . . About 5000 children were rendered temporarily homeless.

The procedure in destroying buildings was generally as follows:

A comparatively small army of men presented themselves simultaneously at each of several convents or churches. They were provided with kerosene and implements of destruction. Having entered, by force if necessary, the kerosene was thrown on inflammable material by some, while others ransacked the

building for valuables, in which they were aided by a lot of women who followed on the heels of the incendiaries. The sacking concluded, the match was applied and the party escaped, usually before the city guards were aware of the attempt.

As to the cause of this wholesale destruction and desecration, General Reed is of opinion that "the strike and incendiarism respectively throughout the provinces were simultaneous, showing preconcert. It is therefore reasonable to conclude that the laboring classes and anarchists,—if not identical, to some extent at least,—worked together, that in some previous meeting the plan of operations effected was mutually agreed upon and the dates fixed for carrying it out. Anarchism is rife in all Catalonia, and particularly in Barcelona. It is taught to the lower or ignorant classes by at least one of the prominent political parties,—the radical Republicans,—represented by about 25,000 in Barcelona and 75,000 outside. Lerroux is a leader of this party and has been its delegate, or representative, in the general Cortes at Madrid several times in the past fifteen years. In his speeches at the party meetings he has openly advocated contempt for law and order, the equal distribution of wealth by force if necessary, and has described the priests and clergy generally as a band of robbers."

FRANCISCO FERRER: ROGUE OR MARTYR?

SEVERAL weeks have passed since the execution of Professor Ferrer in Barcelona and the tumult it awakened has by no means subsided. Meetings of protest are still held in every part of the world, resolutions condemning the clericals and the Spanish Government are passed at almost every gathering of socialists, labor men, and liberals, and a lively warfare is carried on between the Freemasons and the Catholics. Various cities of France and Italy named streets after Ferrer, and the demonstration in Paris was so overwhelming that the next day *Jaures' paper, L'Humanité*, expressed its gratitude with a "Merci, Paris!" Even impartial witnesses,—if there are impartial witnesses in this case,—declare that never since the Commune or the Dreyfus affair has Paris been so stirred. Speaking of the general impression produced by the killing of Ferrer the London *Nation* says:

We doubt if any single event in European history has called forth such spontaneous and violent indignation among the peoples of Europe as the execution of Ferrer by the Spanish Government. From all over France, from the chief cities and coast towns of Italy, from the German capitals and working centers, from the lesser states, such as Holland and Sweden, and even from the University of St. Petersburg, comes the same story of indignant protest, stormy meetings, riots, boycott, and savage denunciation of clericalism and despotism. It is natural that the flame should have burnt most fiercely among the Latin races, partly owing to their more demonstrative temperament and partly because clericalism is to them still a present or a very recent danger. But, in reality, the indignation has been no less strong among ourselves, who have known that danger only in mild forms or by old memories. Even if we made light of a Trafalgar Square demonstration and attempts to threaten the Spanish Embassy as mere turbulence, there would remain the large and orderly meetings, the resolutions of societies of every kind throughout the kingdom, and the condemnation of the act by all the important newspapers, except those which feel



FERRER'S EXECUTION.

KING ALFONSO (looking at the banners which say: "We demand an open trial," "We demand freedom of the press"): "You stupids, that is the very reason I shot him. It's my business."

From the *Amsterdammer* (Amsterdam).

bound to deride every expression of the popular mind unless it supports the forces of reaction.

Great interest naturally attaches to the answer which the Spanish Government has to offer to the charge that Ferrer was not given a fair trial and that he was condemned on insufficient evidence, or on no evidence at all. Señor Maura, while still Premier, declared that the government had convincing evidence which it would produce. So far it has not been produced. A correspondent to the *New York Evening Post*, strongly biased in favor of the clericals and the Spanish Government, volunteers the information that in Spain court-martial, or, as he calls it, "the legal military tribunal," is the regular form of administering justice. However, even some of the Catholic papers seem to recognize the mistake that has been committed. The *London Catholic Times*, for example, says: "We think that the Spanish Government were not well advised in refusing Ferrer a trial of the ordinary kind before a jury, in subjecting the proceedings to a strict censorship, and in refusing the petition

for the commutation of the death sentence."

The *Madrid Epoca* declares that the trial was public, that the prisoner was not condemned because of any general revolutionary ideas he entertained or taught, but on the charge of having led a band of anarchistic rioters through the streets of Barcelona. And the *Epoca* further declares, and in this declaration it is supported by a kindred spirit, the *Paris Gaulois*, that the witnesses who testified to having seen Ferrer lead the mob were thoroughly disinterested, and that Ferrer's counsel could not shake their testimony,—this statement in view of the fact that in Spanish military courts, as is well known, witnesses are not permitted to be questioned by the defense, and the defendant is not even allowed to see the witnesses against him. The *Evening Post*, the same paper which published the anti-Ferrer correspondence mentioned above, describes the methods of a Spanish court-martial in general, and of that which tried Ferrer in particular, as follows:

Now the *Post* has brought pretty full accounts of the actual trial, and we must say at once that the proof adduced against Ferrer was one of the flimsiest, and that no civil court in Christendom would have considered it sufficient to connect him directly with the burning and massacres in Barcelona. It is claimed that "he was tried by a legal and respectable tribunal and enjoyed all the guarantees which the courts of civilized nations afford." But this is misleading. Ferrer was tried by a court-martial after the official proclamation of a "suspension of the guarantees,"—the Spanish phrase for declaring martial law. . . . Under Spanish military law no witnesses at all are permitted to come in person before the court; only their depositions are read. How these depositions were obtained, whether under duress or even torture,—as was charged in the case of military executions in the Montjuich fortress in 1900,—the accused is not permitted to know. He can neither confront nor cross-examine the witnesses against him. All he can do is to make his denials. It is evident that if the court is at all prejudiced against him he labors under a fearful disadvantage.

Alfred Naquet, a close friend of Ferrer, writing in the *Grande Revue*, says the following:

I received several letters from Ferrer informing me of the course of his trial. Possessing these documents, possessing the correspondence that passed between him and myself and other friends before his arrest, during his last stay in Barcelona, as well as during his stay in London from March to June before his return to Spain, and, finally, possessing the complete knowledge of the opinions and projects of a friend of thirty years who kept nothing a secret from me, I say positively without fear of being in the least mistaken: "Ferrer was innocent of all the events that occurred in Catalonia for which he

was shot to death. In saying this I am not expressing a mere conviction, but an absolute certitude. I do not think Ferrer was innocent. I know he was innocent."

Georg Brandes, in a dispassionate review of the case in the *Neue Freie Presse*, describes the partiality of the judges, the applause with which they received every charge against Ferrer, and the sarcastic look and shrug of the shoulders which greeted every piece of evidence adduced in favor of Ferrer. Brandes joins Anatole France, Sudermann, Hauptmann, Haackel, and Maeterlinck in characterizing the sentence as legal murder.

The conservative press seems to be particularly displeased with Ferrer's personal appearance. He was insignificant looking, a corpulent, chubby-faced little anarchist. They also mathematically calculated that he did not have a single original idea. As to his ability as an educator not even the reactionary press denies him that. His personal friends, however, seem not to have been struck by his lack of originality, and it is

difficult to conceive of a man who had so many and such enthusiastic followers as lacking distinction even in personal appearance. Alfred Naquet says of his idealism:

Ferrer was undoubtedly a "revolutionary," if by that word is understood that he desired and hoped for a social transformation that would give the world ever more light, more liberty, more human happiness. At the age of twenty he believed that this revolution would be brought about by force, but as he grew maturer his opinions on this point underwent a change. He certainly did not repudiate the use of force in the service of liberty. He knew that when the hour should strike it would be necessary to use force in order to achieve the grand transformation which the progress of generations is slowly preparing. . . . But he was temperamentally entirely absorbed by his interest in his educational work, the work which fertilizes the mind and without which force can produce nothing. Ferrer has often been called an anarchist. I protest against this name because ignorant people do not apply it to such philosophers as Proudhon and Elisé Reclus, but to propagandists of the deed, and because the monks, instead of seeing in anarchism a social concept, regard it simply as a form of terrorism. An anarchist in this sense Ferrer was not.

THE RIVIERA'S FLOWER INDUSTRY.

IF you take your atlas in hand and turn to the map of Italy you will in the upper left corner find a piece of water marked Ligurian Sea, with Corsica to the south of it and Genoa situated on its northern shore. The shore line extending from the French frontier to the Gulf of Spezia forms an arc whose curve, measuring about 150 miles in length, is by geographers divided into two parts. These are the Riviera di Levante and the Riviera di Ponente, or the east and the west coast (*riviera* signifying *coast*); the eastern section is usually ignored by us Americans, while the western we almost invariably speak of as the Italian Riviera, meaning even then little more than the territory adjacent to San Remo. Our error will, however, stand us in good stead while we follow the writer who in the *Nuova Antologia* (Rome) tells us something about "The Flower Industry of the Ligurian Coast Line," for Gustavo Vagliasindi,—the head of San Remo's traveling body of lecturers on agriculture,—here discourses mainly on activities in the San Remo district, the hub of this industry, although he also mentions facts showing that along the east coast great and rapid progress is being made.

Enjoying a mild climate and the shelter of a high "pre-Alpine" range, the favored tracts sprout forth vast quantities of the carnation, rose, and violet (these are the leaders in the order named), and of the smilax, Easter flower, daisy, narcissus, mignonette, acacia, besides other varieties still. Translated into American terms of commerce, the value of the cut-flower business, as represented by the shipment figures of the shore railroad system, mounts up to two million dollars a year. This reckoning implies the omission of the light summer trade, from June to September. As stated, the bulk of the growing is done in the region of San Remo, which town, together with the neighboring towns of Ventimiglia, Bordighera, Ospedaletti, San Stefano, Taggia, and Coldirodi, may be designated as the most important centers of the industry. During its precarious early life, when there was a great deal to be done in the way of clearing, stoning, leveling, irrigating, the floriculture of this district was carried on in a somewhat haphazard and primitive fashion, and with uncertain profits. But in recent years the whole process of planting, training, picking, transporting, and selling has been thoroughly methodized.



THE RIVIERA FLOWER MARKET.

(Waiting for the signal to begin selling.)

Now, under official auspices and regulation, daily markets are held at the above centers, and in the opinion of the author said markets form the most interesting and original expression of the peculiar local industry which he speaks about in the pages of the *Nuova Antologia*.

The flowers are gathered the night before or very early in the morning; they are bunched in masses and placed for the night or the few hours remaining before the market time with their stems in vessels of water. They are then arranged by varieties, and properly trimmed. In bouquets of dozens or hundreds the cut flowers are laid lengthwise in oval baskets, or in star formation in round baskets, according as the stems are long or short. Carried by a hastening lot of wagonets, omnibus coaches, chaises, and other vehicles of every date and shape, and on the heads of scurrying men and women, the baskets, covered with newspapers or cloth, arrive at the markets. These are held in the public squares of the different centers, where the baskets are aligned closely on the ground in long rows, allowing sufficient intermediate space for pedestrians. The serried files of baskets thus remain covered up until a communal guard or police official has collected the tax [of one or two cents] payable for temporary occupation of public ground. Previous to the right moment no seller may uncover any wares, in obedience to the regulations governing flower markets, superintended by a commission that settles all disputes without appeal. Punctually at the moment

fixed for the opening the guard blows a whistle. For an instant the hum and bustle of the multitude ceases, while the venders are speedily disclosing their wares and the wholesale buyers are making for points of vantage. The baskets uncovered and the flowers adjusted and well displayed, the bustle and commotion are resumed, bargains struck in a flash, hesitating offers mumbled, vigorous refusals and persistent bids exchanged. . . . A few seconds from the beginning of the display the best baskets are covered up again because sold, they leave the files, and are taken away to the dealers' carts. . . . A half hour after the opening of the flower market the square has returned to its normal aspect, and so remains until the same period of the following day.

The lively activity of the markets is rivaled by that of the packing depots, where girls expert in quick and deft fingering of this fragile commodity put forth their best efforts to get the flowers ready for dispatch by special trains, until whose departure carts piled high with the sweet-scented freight come rushing up to the station doors at a gallop.

To the population of the Ligurian littoral floriculture has thus become an inestimable economic boon. The industry is spreading in a substantial and gratifying manner, and, apart from occasional ill choice of soil or locality, is being conducted on principles showing ever more and more development in practical and scientific directions.

WHAT OUR CHEWING GUM IS MADE OF.

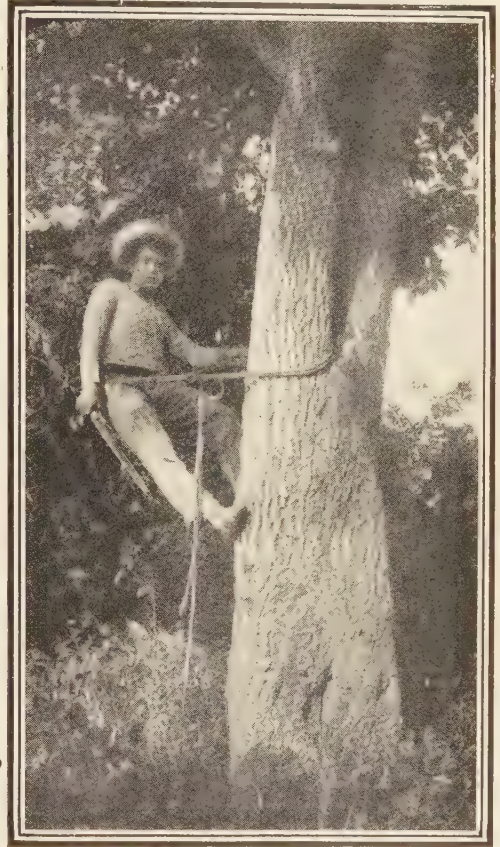
IT will, we think, cause some surprise, even to the most inveterate "ruminator," to learn that nearly three billion pieces of chewing gum are manufactured in the United States annually. According to Mr. Russell Hastings Millward, in the October *Bulletin* of the International Union of the American Republics, practically all of this is made from one product of tropical America,—chicle. Chicle is obtained from the tree *Achras sapota*, which is indigenous to Central America, the northern countries of South America, and certain States of Mexico. The tree in its wild state frequently attains a height of 50 feet, and is generally found in groups. Being straight and having a clear length, it is most desirable for timber. Formerly the Sapodilla pear, which it produced, was a popular fruit in Latin-American markets; but owing to "the demand for chicle gum, and the attractive rewards offered for its gathering, the fruit is now seldom dealt in by the natives."

The operations of gathering chicle and preparing it for market resemble those of the maple-sugar industry. They are thus described by Mr. Millward:

Throughout the rainy season, and while the sap is up, the tapping is done by the chicle gatherers, or *chicleros*, as they are called. Their outfit is most simple and consists in nothing more than a piece of rope and a machete. By means of this rope, which is fastened about the waist and slipped around the tree, the *chiclero* is enabled to hold any desired position and wield the machete in cutting the incisions or gullies.

In tapping the trees a V-shaped incision is cut spirally all around the tree, the arms of the cut extending upward, in order to permit the sap to flow freely to the bottom, where a receptacle is placed at the end of the gully. The sap has the appearance of milk as it flows from the tree, but it afterward takes on a yellowish color and thickens until it is about the same consistency as treacle. In this state the sap averages about eight pounds to the gallon.

Excessive bleeding of the sap will cause the tree to decay rapidly, so that great care is necessary not to cut too deeply. Formerly the *chicleros* were paid 10 or 15 cents a pound for the sap, and they gathered it "without regard to the injuries sustained by the trees"; but now on many of the large estates labor is paid for by the week, day, or month, thus avoiding the tendency to promiscuous tapping. Moreover, the Latin-American governments, when granting con-



A "CHICLERO" AT WORK.

(The gatherer of the chicle gum climbs the tree by a native rope device. He carries with him the machete with which he makes the incision for collecting the gum.)

cessions for the gathering of chicle in the national forest reservations, require that natives be "properly instructed in the gathering and preparation of the gum." The method of preparing the sap is as follows:

After the sap is gathered it is carried to the boiling-shed and by a rather primitive boiling process is brought to the proper consistency. As the operation continues it is necessary to knead the mass from time to time in order to extract the water. . . . In the old days much deception was practiced by the *chicleros*, who, in order to increase the weight, would insert stones, bark, sand, or wood in the boiling chicle before it was formed into loaves. This clever deception is a thing of the past, however, as the contract calls for a pure, straight article, and there is little opportunity of adding any foreign substances. . . . The process of manufacture consists in simply mixing and boiling the gum,

in copper kettles, to a required consistency and adding some flavoring extract, such as vanilla, peppermint or wintergreen, and sugar, after which it is transferred to large centrifugal receivers. Here it is whipped into a dough and afterward removed to tables and kneaded in powdered sugar. It is then rolled into sheets, cut to desired sizes, dried, wrapped by machinery in attractive papers, and placed in boxes ready for the market.

It will be gratifying to "gum fiends" to learn that the numerous gum factories throughout the United States are "sanitary in every particular" and that "methods of absolute cleanliness prevail in each department." Also that "an official report by the Department of Commerce and Labor states that a chewing-gum factory was "the second cleanest plant inspected in the United States." The product is pronounced a pure and wholesome article and harmless to "its vast and faithful army of consumers."

The use of chewing gum is worldwide, and apparently increasing. "Its distribution extends in the western hemisphere from Hudson's Bay to the Argentine Republic; in the East from London to Hong-Kong; and the inhabitants of the Australian and South African colonies are large and ever-increasing consumers." Some idea of the enormous proportions of the chewing-gum industry may be

gained from the estimate of a prominent manufacturer, that "sufficient chewing gum is produced each year to supply every human being on earth with two sticks, and that the daily energy expended in the consumption of this popular masticatory is equal to that necessary to light a city of 250,000 inhabitants for the same period."

Chicle has advanced in price very rapidly. "Prior to 1888 it sold for from 7 to 8 cents per pound; in 1896 it sold for 36 cents per pound; now it is selling for 48 cents per pound." In 1885 the United States imported 929,959 pounds of chicle; in the year ended June 30 last, 5,450,139 pounds.

The gum was known to Spanish explorers 500 years ago; they reported that the Indians employed it "to quench thirst and relieve exhaustion." The wood is "of a reddish color, closely resembling mahogany, is quite hard, heavy, compact in texture, and fine-grained." Prehistoric door frames and rafters of sapota wood "are found among the Mexican ruins, and are still in an excellent state of preservation." To-day cabinetmakers employ the wood in the manufacture of high-grade furniture. Where care has been taken, trees have in some instances been tapped for twenty-five years.



PRIMITIVE METHOD OF BOILING THE CHICLE GUM.

(After gathering the sap, the mass is boiled in primitive kettles in the open air until the water is evaporated and nothing but the pure gum remains.)

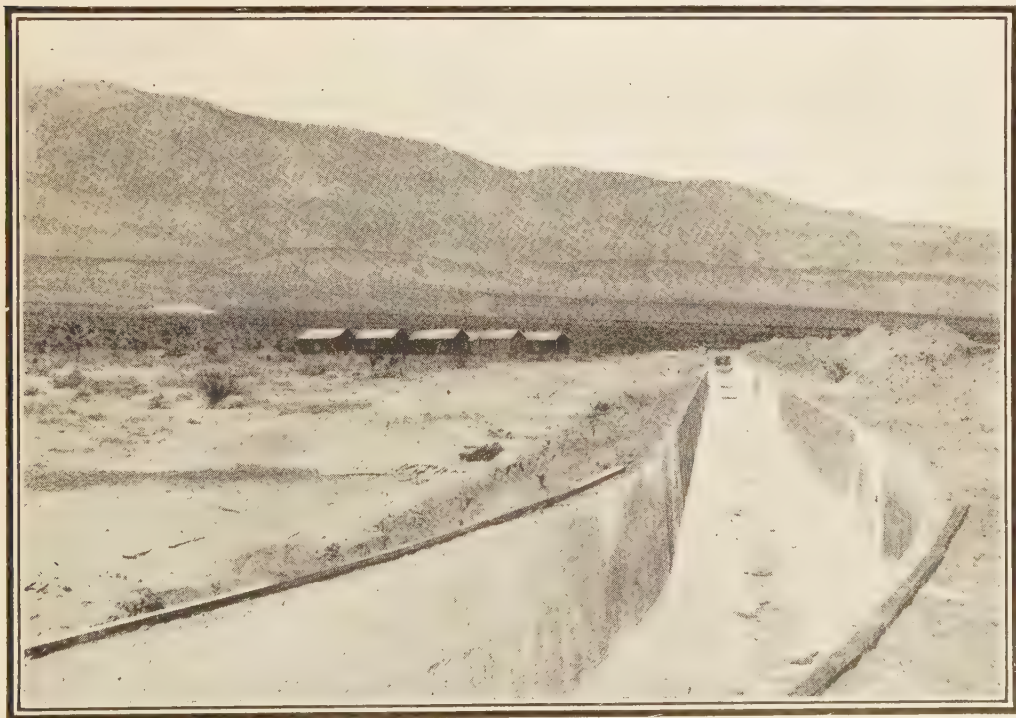
WATER AND POWER FOR LOS ANGELES.

THE city of Los Angeles, Cal., is carrying out a combined water supply, irrigation, and power project which the Water Board of that city characterizes as "one of the boldest schemes for providing a municipal water supply ever undertaken by a city." It embraces the construction of 240 miles of aqueduct at a cost of \$24,500,000. Mr. Burt A. Heinly contributes to the current number of the *Engineering Magazine* an interesting account of the plan, construction, and purposes of the aqueduct, in a note to which the editors of that publication state that, while it is their "strong belief that it is not one of the functions of government, whether State or municipal," to undertake projects of the kind (if private funds are available), the Los Angeles scheme "appears to be an exceptional instance, owing its extraordinary success to an exceptional personality." The editors say further that they believe "that to the man, rather than to the system, the admirable results achieved must be attributed, and that they deserve publicity as a model and standard to be striven

for elsewhere." The man referred to is Mr. William Mulholland, Water Superintendent of Los Angeles. Mr. Heinly writes:

Five years ago scoffers looked upon the project as the phantasmal scheme of William Mulholland,—a scheme made impossible by the tremendous difficulties to be overcome. To-day three thousand men toiling in the heat of the Mojave Desert, the panting and puffing of a dozen steam shovels, and the clank and clug and whirr of tunnel machinery are evidences that the chimera of five years ago is at the present moment very much of a reality.

The project was the direct result of Los Angeles' "crying need for a larger domestic water supply. This need led to the discovery of the Owens River, 250 miles to the northward, in the heart of the Sierra Nevada Mountains, as the source from which this necessity might be procured"; and the scheme was made possible financially by the opportunities "of irrigation and of the development of electric power." It is proposed to construct within the next five years 240 miles of aqueduct and to deliver through this "into the San Fernando Valley, at the



A MILE OF COMPLETED AQUEDUCT IN THE HEART OF THE MOJAVE DESERT.

(The cover remains to be put on.)

mouth of which Los Angeles is situated, 280,000,000 gallons of water every twenty-four hours." For nearly the whole distance the route lies through an "absolute desert which offers no food for man or beast, and little, if any, water."

For 60 miles the survey runs through a mountainous district, 300 to 1200 feet above the floor of the desert, where Nature in her wildest mood has created a topsy-turvy land of rocky buttes, needle peaks, and canyons seared by volcanic fires and carved deeply by storms of sand and rain. For 5 miles the way leads beneath the Coast Range of mountains. Before the city's engineers began their work the stage coach of the days of '49 and the saddle-horse formed the only means of conveyance and communication.

To obtain possession of the required water the city purchased 140 square miles of territory in the valley through which the Owens River flows; and the work has now been two years under way. Of a projected steam railroad 120 miles across the Mojave Desert, 80 miles are in operation; more than one hundred miles of well-ballasted road, some of it blasted out of solid rock, have been built; and 90 miles of pipe lines have been laid to insure an adequate supply of pure water wherever the aqueduct forces are engaged. To save the manufacturers' profits on cement, of which 1,180,000 barrels will be required, the city has gone into the cement business, and is now operating the "only municipal cement mill in the world," with a capacity of 1000 barrels a day. Telephone lines connect the various camps with the aqueduct headquarters in Los Angeles. From 3000 to 5000 men are employed on the works; and these "are well housed and well fed and are watched over by a corps of physicians." Mr. Heinly gives the following particulars concerning the aqueduct system:

Five large reservoirs are to be constructed,

one 35 miles above the intake to impound flood waters, another 60 miles below the intake for clarifying and storing the seasonal discharge, a third at the foot of the Coast Range in the Antelope Valley for regulation when the power plants are in operation, and two in the San Fernando Valley for impounding and distribution purposes. This system of reservoirs will have an aggregate capacity of 376,256,000,000 gallons.

. . . The first 22 miles is a canal, 50 feet wide and 10 feet deep. The size and shape for the remaining distance are determined by the natural conditions. . . . The average size is 12 feet wide by 10 feet deep, of monolithic concrete construction, covered for the major distance with slightly curved top of reinforced concrete heavily girdered. There are 22 miles of canal, 152 miles of cement-lined conduit, 29 miles of tunnels through rock and earth, 14 miles of steel siphons, 8 to 10 feet in diameter, and 2 miles of flumes. . . . The elevation at the intake is 3800 feet; at Los Angeles less than 300 feet. The water may therefore be carried by a gravity flow the entire distance to points where it is to be used for irrigation or domestic purposes.

To meet the cost the city of Los Angeles has issued bonds, taxing itself at \$88 per capita. The city was called upon to defend in the courts its right to do its own work.

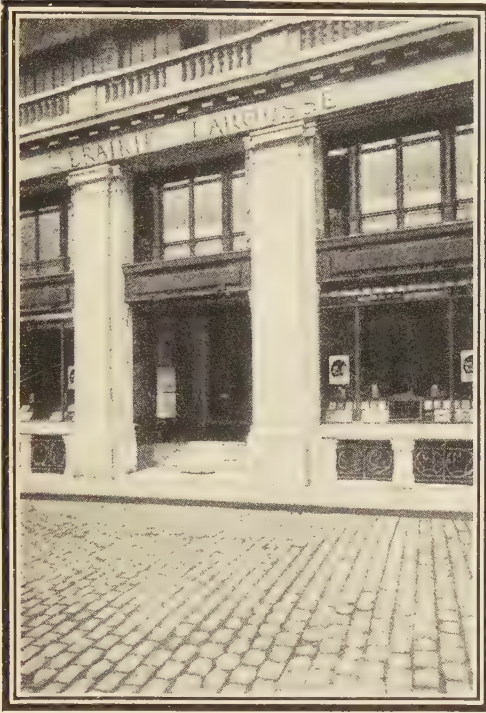
A restraining suit was filed by contractors in which it was alleged that it was contrary to the city charter, and that the work could be done cheaper and quicker under private contract than by force account. In refuting these last arguments the city filed its cost data sheets, wherein it was shown that not only was the work being carried on at a smaller figure than the engineer's estimates, but that this was less than one-half the bid of the lowest contractor.

As the daily capacity of the conduit is to be 280,000,000 gallons, and the domestic consumption of the city is only 35,000,000, a large quantity will be available for irrigation purposes and for the supply of cities in the immediate vicinity of Los Angeles. The date set for the completion of the aqueduct is the spring of 1913.

FAMOUS FRENCH PUBLISHING HOUSES.

"TO have published the 'Waverley Novels,' or 'Vanity Fair,' or the works of Charles Dickens, or the 'Comédie Humaine' of Honoré de Balzac, or Victor Hugo's 'Les Misérables' is a distinction which the world at large has only half appreciated. While the first and great debt that posterity owes is to the geniuses who conceived and wrote those masterpieces, there is a secondary debt owed to the men whose

courage and judgment led them to present those masterpieces to the world in material form." This passage occurs in a "foreword" to an article in the *Bookman*, by Mr. Alvan F. Sanborn, on the publishing houses of France; and there is no doubt its assertion is well founded. In his article Mr. Sanborn includes an account of the negotiations whereby the young Belgian Albert Lacroix came to publish Hugo's "Les Mis-



THE HOUSE OF LAROUSSE IN THE RUE DE
MONTPARNASSE, PARIS.

érables. Lacroix had heard that Hugo had just finished it, and he "swore solemnly to Verboeckhoven, his partner, 'Les Misérables' shall be mine." He sent a letter to the author, professing a willingness to accept any condition and to subscribe to any demands. Hugo's son Charles, who happened to be in Brussels, acted as go-between. The negotiations were proceeding rapidly when Hugo expressed a wish to see Lacroix and invited the latter to visit him. The interview is thus described:

Immediately after lunch the poet set about dictating to the publisher a contract remarkable for its precision and prudence. Lacroix was not a little troubled as he wrote: he bound himself to disburse sums of which he did not possess the first sou. Where should he find the 125,000 francs to be paid on the delivery of the manuscript? . . . It only remained for the contracting parties to place their signatures at the bottom of the document. As he was about to sign, Albert Lacroix was seized with a strange scruple. He discerned, upon a corner of the desk, an enormous pile of blackened sheets. It was the manuscript of the first two volumes of "Les Misérables." He would have liked to touch them, to turn them over, to run his eye through them. Timidly he confessed this desire.

"May I—examine—a little—the manuscript?"

The hand of Hugo fell heavily upon the sheets. . . .

"No. It is impossible. . . . Suppose it is blank paper. I have put my name there. That suffices."

Lacroix yearned to have the earth open and engulf him. He had offended his poet, his god. How expiate such a piece of tactlessness? He lifted toward him eyes charged with repentance. Then seizing the contract he affixed his signature beside that of Victor Hugo.

The book was published the same day in Paris, Brussels, Leipsic, London, Milan, Madrid, Rotterdam, Warsaw, Budapest, and Rio de Janeiro. Lacroix sold 600,000 copies, which netted him a million francs,—a great fortune in those days.

One of the best known publishing houses in Paris is that of Hachette et Cie. In 1822 the government of the Restoration closed the École Normale. Among those who were thereby prevented from becoming professors was Louis Hachette. He bought "the little book business of Brédif in the dingy Rue Pierre-Sarrazin" and proceeded to publish improved editions of the classics. He died in 1864, and three years later the annual sales of the house were reported as amounting to 9,000,000 francs annually. Hachette et Cie was "one of the first houses to realize the possibilities of railroad sales and to make a feature of illustrated editions,—it may be almost said to have been the discoverer of Gustave Doré,—and of illustrated periodicals. The fingers of both hands would not suffice to count the magazines it publishes. Zola was for a while employed in the Hachette offices.

The rise of the house of Larousse (now Hollier, Larousse et Cie) is even more remarkable than that of Hachette. Pierre Larousse was the son of a plowmaker of Toucy. At twenty he was in charge of the Toucy grammar school, and while there perceived the defective nature of the text-books in use. He determined to prepare fresh books, and with the little money he had saved went to Paris to complete his education.

Every month his good mother sent him an enormous pot of melted butter; and, thanks to this highly concentrated nourishment, which he supplemented with bread and onions, his scanty savings lasted him eight years. Then he taught for three years in a private school, devoting his spare time to writing his text-books and to gathering material for an encyclopedic dictionary. . . . He dreamed of publishing such a dictionary as had never been seen.

He began issuing his text-books in 1852, and thirteen years later had made a fortune and was issuing the first installment of his



THE HOUSE OF HACHETTE IN THE BOULEVARD ST. GERMAIN.

(This publishing firm regards instruction as its peculiar mission. It was one of the first houses to realize the possibilities of railway sales and to make a feature of illustrated editions. Emile Zola, as a young man, was employed in the Hachette offices.)

Grand Dictionnaire Universel. He disliked bookkeeping, and paid his authors himself on the spot. One of them says:

When we handed him our copy we handed him with it a statement of the number of lines it made. So many lines at so much, total so much. He glanced at the total, plunged his hand into his right trousers' pocket, pulled out bills, silver, and gold pell-mell and paid. No receipt. He was a simplifier.

By working fifteen or sixteen hours a day, he in 1871 had finished the entire work, 400 octavo volumes of 500 pages each. His health then broke down completely. Other Paris publishing houses included in Mr. Sanborn's paper are those of Charpentier, founded by Gervais Charpentier in 1835. Georges Charpentier, Gervais' successor, was the friend of Flaubert, the Goncourts, and Zola. The house published "the first volume of the Rougon-Macquart series in 1872, and from that time on Zola seems never to have so much as considered making a change."

In fact, the friendship of Zola and Georges Charpentier constitutes one of the most beautiful and touching chapters in literary history. The Charpentier family and the Zola family went to the theater and the art salons together. The Zolas took a great interest in the Charpentier babies, and Zola became the godfather of one of them. Madame Charpentier, a brilliant woman of the world, supplied Zola with information regarding the usages of society (for his novels), and even secured for him his red ribbon of the Legion of Honor.

Then there is the house of Alphonse Lemerre, the savior of the "Parnassiens," who took "Le Parnasse" in hand and paid the outstanding printers' bills and what was due the authors and contributors and developed the publication until it brought him a fortune. Anatole France was for a time a manuscript reader for Lemerre. Nor must the house of Calmann-Lévy, the "Ticknor and Fields of France," be forgotten, which took its rise in "a reading cabinet and the theatrical book store opened in the Rue Marie Stuart, Paris, by Michel Lévy, in 1836," and which "has achieved the greatest distinction

in the domain of pure literature," and has published for About, Balzac, Chateaubriand, Dumas père and fils, Guizot, Lamartine, Sainte-Beuve, George Sand, Sue, De Tocqueville, and many others equally eminent. Of totally different character is the house of P. V. Stock, tracing back for 200 years, and for 118 years (1782-1900) in the same building as the Comédie Française. Here is published the famous red-covered Anarchist Library, and here from 1897 to 1899 was the meeting place of the leading Dreyfusard spirits. But the boldest of all the Paris publishing houses is the *Mercur de France* in the Rue Condé. It is "a fortnightly review that publishes books."

The *Mercur de France* bears the same relation to symbolism and to the movements that have sprung from or been intimately associated with symbolism that the publishing house of Charpentier bore to realism and the publishing house of Lemerre to the Parnassian movement. It has grouped together practically all the daring writers, and has crystallized practically all the innovating literary activities of a generation. It is too early yet, perhaps, to attempt to determine the place in literature of most of the writers whose works have been printed by the *Mercur de France*; but the works of a number of them, though little known in the Anglo-Saxon countries, have made and are making a strong appeal to the élite, not only of France but of all the Latin countries. Furthermore, the *Mercur de France* is doing more than any other single agency, probably, to familiarize, by publishing translations, French readers with the best products of contemporary foreign literature.

THE NEW SCIENCE OF THE AIR.

THE account of the genesis and development of this new science of the air, as set forth by Mr. Waldemar Kaempffert, in the *Pall Mall Magazine*, reads like a veritable fairy story.

The men whose names are most associated with the investigation of the upper air, he tells us, are Teisserenc de Bort (France), Professor Lawrence Rotch (United States), and Dr. Assmann (Germany).

Professor Rotch's exploration of the lower four miles of air is the best ever made. He is connected with the Blue Hill Meteorological Observatory, Massachusetts, and, like other air explorers, has used open box-kites. A kite can only fly four miles, and to explore the air above that height and above the six miles that mark the limit of human endurance "sounding balloons" are used, and it is with these balloons that M. de Bort and Dr. Assmann have discovered so much. A large kite, it is interesting to know, pulls so hard that an engine-driven winch has to be used to haul in its long line, ten miles of which may often be out. Theodolites placed on the ground determine in clear weather the elevation of the kite.

M. de Bort used paper balloons, but Dr. Assmann has adopted india-rubber ones, as they reach greater heights than others and reach them more quickly. Sounding balloons are filled with hydrogen gas, which expands with elevation, until it finally causes the balloon to burst. The instruments are not broken as they fall to the ground, because of a parachute, or else an auxiliary balloon which does not explode, used to retard their descent. A printed notice is attached to the basket containing these instruments offering a reward for their return; and more than 95 per cent. of them are returned to the observatories. Sounding balloons often rise up fifteen miles and more, and cover distances of 700 or 800 miles at the rate of forty to eighty miles an hour.

"INTERNATIONAL WEEKS" OF AIR EXPLORATION.

In order to give greater value to the observations made, kites and sounding balloons are sent up on certain agreed-upon dates from the air-exploring stations of the entire world. Usually the time chosen has been in July; this year it is to be in December. As a result of many hundred kite and sounding bal-

loon flights, made by day and by night, in fair weather and foul, overland and sea, at all seasons of the year, and from the equator to the Arctic circle, we have arrived at certain highly interesting facts about the air above us. Indeed, it is amazing to think what unfamiliar conditions exist only seven or eight miles away in the air. Most of us know that the warm air surrounding the earth is only a thin belt, but we do not most of us know that at ten miles above the earth it would not only be bitterly cold, but the sky would appear quite different.

The air is stratified in three more or less distinct layers. In the lowest, of course, we live; it extends for about two miles, and is a region of turmoil, whimsical winds, cyclones and anti-cyclones, as we all know very well. At two miles freezing-point is reached, and then there is a second stratum, extending upward for about another six miles. Here the air grows steadily colder and drier, the lowest temperature so far recorded being 167 degrees below freezing-point F.

Here the air moves in great planetary swirls, produced by the spinning of the earth on its axis, so that the wind always blows in the same easterly direction. The greater the height the more furious is the blast of this relentless gale.

WHEN WE MAY PROPHECY ABOUT THE WEATHER.

After this swirling layer comes the third, or isothermal stratum, discovered almost simultaneously by M. de Bort and Dr. Assmann. This is called the "permanent-inversion stratum," because the temperature increases with the height reached. However, the temperatures so far recorded in the second stratum are not very high, being far below 0 degree F., generally somewhere from 122 degrees to 140 degrees below it. Here the air no longer whirls in a planetary circle; the wind may blow in a direction contrary to that in the second layer; and the air is invariably excessively dry. Just where this third stratum ends no one knows, but it must be at more than eighteen miles above the earth, for sounding balloons have reached this height, but have not found the end of the "permanent-inversion" layer of air. When the influence of the upper regions of air upon the lower is fully understood it may be possible to foretell the weather not merely for a day, but for a week.

FINANCE AND BUSINESS.

NOTES ON APPLIED ECONOMICS OF THE MONTH.

A COUNTY THAT WON'T PAY.

A LEGAL event in Kansas City last month carries interest not only for the town or county official or voter but also for the many prudent investors who are exchanging railroad stocks, or other securities recently boomed, for the quieter and surer kinds typified by the municipal bond.

The point of the story is that any well-known municipal bond to-day is free from certain dangers of a generation ago.

On October 8, the holder of \$200,000 of bonds issued by St. Clair County, Mo., got a judgment against the county in the Kansas City courts for \$552,321.88,—the enormous addition representing compound interest and costs.

The bonds were issued by the county in 1870 for a railway which was never built, and so this owner wants his money back. In spite of his judgment he cannot get it. The amount would bankrupt the county, and the St. Clair folks feel that the bonds should never have been voted anyhow, because they were not designed to benefit every citizen equally and directly, as does a school bond or a court-house or bridge bond.

Therefore, the United States courts for years have been unable to collect such judgments in St. Clair County. Fifteen county judges have served terms in jail for refusing to enforce the Federal decisions that the county must pay.

Such lessons have been heeded. Nowadays, if you read the face of any municipal bond handled by any firm of any experience at all you will find that the purchaser's money represents a water or lighting system, sewers, an electric light or gas plant, a highway, or some other improvement in which every citizen of the community participates. So it is indeed "as sure as taxes."

BIG RAILROAD EVENTS, WEST AND SOUTH.

THE last spike was driven, on the first of November, in the last link of our newest transcontinental railway, the West-

ern Pacific. It extends the Gould system from Salt Lake City to San Francisco.

Three days later one of the three great Southern systems,—the Seaboard Air Line,—was taken out of the hands of a receiver, much improved physically and with new mileage. Thus the only railroad besides the Chicago Great Western whose failure in 1908 involved the public to any extent, is again in the hands of its owners.

Southern investors who have always loyally backed the Seaboard are pleased at having it returned to them not only without any assessment on stockholders but with a gain of a couple of million tons of coal traffic a year through its connection with the new Clinchfield line, and with a record of careful operation at less than 70 per cent. of income, instead of the more than 76 per cent. of the year before.

The success of the Western Pacific financially will mean greater profits for the more than sixteen thousand miles of other "Gould" roads, especially the Denver & Rio Grande, which takes the "transcontinental" east as far as Denver, the Missouri Pacific, which continues it to St. Louis, and the Wabash, which, with its dependencies, gets to Pittsburg, and was just before the panic about to be connected with the Western Maryland, which reaches the Atlantic.

Thus, the student of American history and railroad rates is interested, together with the owners of "Gould" stocks and bonds, in the showing of earnings the Western Pacific is about to make.

Speaking financially, an enormous traffic will be needed to pay interest on the \$73,000,000 of bonds issued to pay for the steel and concrete bridges, the mountain grades easier than those of competitors, and the other items of "standard construction."

The "Denver" road is pledged to pay, to the holders of the First Mortgage Bonds of the Western Pacific, any interest not earned by the latter.

Of course, no one doubts the justification of the new road's existence. It penetrates Nevada, Utah, and California, so rich in min-

ing, lumber, and irrigated farming possibilities,—a region hitherto served only by the so-called "Harriman" lines.

ALL RECORDS BROKEN.

"THE American passion," says Max O'Rell, is to "break the record." One sees much printed glorification of the high marks in industry that were set last month. But it is difficult to find an interpretation not only of the lights these figures reflect but also of the shadows they cast.

The two most impressive broken records were those of iron and bank checks. Iron production, as the basic industry of all, furnished international news when it touched 2,592,000 tons in October,—11 per cent. more than the best month of 1907 even.

Then checks passed through the banks of the country during October to the amount of \$15,851,000,000,—5½ per cent. above the previous record, January, 1906. Nor is wilder stock and bond speculation in New York City to be held accountable. Exclusive of the metropolis, there was an increase of \$880,000,000.

What is the meaning to the workman, the legislator, the owner of stocks and bonds? Are the companies that operate our railroads and factories and other big enterprises really netting more money in proportion to their greater needs?

The first figures seem to answer "Yes." Forty-eight railroads earned 11.76 per cent. more this October than the year before, and twenty-five roads during the first week in November earned 17.49 per cent. more. But these figures are "gross," not net.

Then the big manufacturing plants all report "full capacity," which means 95 or 96 per cent. in real figures, because no group of mills can run in every part all the time. Material may be late or repairs needed. There is activity. But how about profits?

THE PRICE OF MILK AND OF RAILROADS.

HIGH grade bottled milk in New York City was raised from 8 to 9 cents a quart last month. As far away as Nebraska there was a simultaneous complaint,—only 14 quarts obtainable for \$1.

Railroads do not consume milk, but railroad employees do. And last month 125,000 of these were reported as determined upon higher wages.

Thus indirectly but powerfully are railroad expenses heightened by so much every time there is a rise in the price of commodi-

ties, the things we eat, and wear, and furnish and build our houses with, and so on.

Direct influences, of course, are even greater. Of all consumers of paint and iron and other commodities, the railroads are the largest. Now the "index" of these commodity prices, their average, is at present only 2.3 per cent. below the highest mark on record,—made on March 1, 1907. Since July 1, 1896, it has risen no less than 56.7 per cent.

The railroads cannot pass a higher price along to the consumer, as can the milkman or the landlord, the grocer or the tailor.

The figures are striking. While commodity prices were coming up 50 per cent. (1897-1907, inclusive), the average railroad rate throughout the United States, expressed in tenths of a cent per ton per mile, actually fell,—from 7.98 to 7.59. The figures were compiled under the direction of Henry C. Adams, Statistician to the Interstate Commerce Commission.

The taxation of railroads last year was \$376 per mile. Ten years before it was only \$247.

One may believe that a rise in the price of milk indicates the prosperity not only of the milkman but also of the farmer. But the movement of which it is a sign does not necessarily bring prosperity to the railroads. They make more dollars perhaps, but it costs them more to make each dollar.

REAL MONEY IN THE BANK, AND THE OTHER KIND.

THE big "industrials," the companies that produce copper, cars, cotton-oil, sugar, chemicals, and the like, smile upon an era of higher prices. Though their raw stuffs cost more, they win because they can charge even more in proportion for their finished product. It is thought more logical to buy shares in their profits at the present time than to buy shares in railroads.

However, some enthusiasts over industrial prospects just now are overlooking the connection between the factory and the bank. Like the stomach and the brain, what ails one ails the other,—a childlike consideration now being ignored by men of large affairs.

When a captain of industry decides to hire more salesmen, build a new wing to his factory, bring out a new "line," he gets more credit from the bank. Then to prove that he is sailing with a fair wind, he points to the item in the newspapers showing that bank deposits are increasing.

The trouble is that this does not necessarily signify any more real money available to finance his expanding career than there was a year ago, when he was sailing close.

Then bank deposits consisted almost entirely of savings, actual cash. Now they consist largely of the very pieces of paper that represent the credits extended to our captain of industry and his fellows.

When the bank lends the manufacturer a hundred thousand dollars on his note and on the strength of a twenty-thousand-dollar cash balance, the happy borrower crosses the aisle, sticks the note in at the receiving teller's window,—and the bank with a pen-stroke has increased its deposits \$100,000.

Yet there is no more cash in that account than there was last year.

For instance, the national banks of the country a couple of months ago had loaned \$278,000,000 more than the year before. But at the same time they had actually lost in specie nearly \$28,000,000. More loans, less cash,—here is the indication of the *minus* amount of real money contained in the \$462,000,000 which had been added to the deposits of these banks.

In the last week of October, and for the first time in more than twenty months, loans ran ahead of deposits among the associated New York banks. Such a sign of "expanding credit" is something the business man ought to watch as closely as the sailor watches a rising wind.

THE TIME TO TEST BANKERS.

AT a time like the present it is plain that whoever popularized the phrase, "As safe as a government bond," caused an infinite lot of trouble. Just now the absolutely safe and popular bond is absolutely not the kind that people ought to buy.

By the bond dealer's attitude on this subject the investor can judge whether he is merely a trader, to be haggled with like any other merchant, or whether he is a member of the bond profession, to be consulted like one's family lawyer or doctor.

To illustrate picturesquely, take the very sound and professional advice in last month's circular from the oldest banking house in the United States. We sum it up as follows: The prices of the high-grade and well-known bonds, such as the railroad first mortgage kind,—the things that in America take the place of "consols" in England and "rentes" in France,—are pronounced to be too high. The bonds are emphatically not the kind to

be purchased by a business man or an institution hoping to sell at higher prices later. Instead, one should buy either short term notes coming due in a year or two,—or leave the money in the bank.

Here is real banking discrimination, not "boosting." It compares significantly with the circular from the same experienced firm exactly two years before, which declared that "conservative investment securities" (meaning the same first mortgage 4 per cent. railroad kind) "are cheaper now than they have been for the past nine years."

All the above, to any other well posted banker, sounds elementary,—merely to be expected from a firm active for more than a century, and a pioneer and large factor in American railroad development. The truth is, however, that most financial folks, even among those that are well qualified to judge, do not commit themselves as strongly at the bottom and the top of the market. It is deemed unwise in many quarters,—too much of "a concession to public opinion."

It takes nothing but arithmetic to figure that, with higher prices for milk and other things the bond owner must buy, he ought to pay less for his bonds, since their coupons call only for fixed amounts.

All this is highly suggestive. The man who buys Union Pacific first 4s now at 103 not only gets less than 4 per cent. on his money but his passion for extreme safety will probably result in a letter to his financial editor in the course of two or three years similar to those now being received from owners of United States Government 2 per cents.

"I bought a thousand-dollar bond two years ago at 106. Now it is at par," writes one correspondent.

Another whose purchase was made in 1902 figures out that he now has a loss of \$90 on every \$1000; yet he thought that nothing could be "as safe as a Government bond."

At those very dates bonds could have been found yielding two and a half to three times as much as the Government 2s, which to-day are selling higher,—the quiet bonds, not unpopular, but non-popular.

Now that movements like this are the subject of timely warnings from those bankers who are professional, and now that daily, weekly, and monthly publications are giving much space to the swings of money rates and their effects upon bonds as well as other things, there is less reason for the intelligent citizen, wherever situated, to feel finance a hopeless mystery.

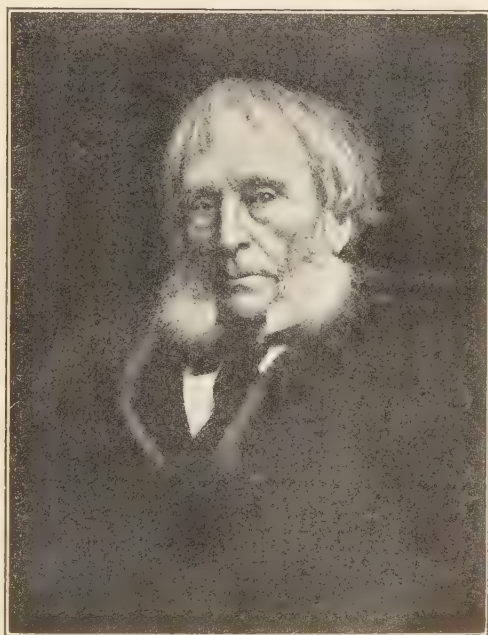
SOME BOOKS OF THE HOLIDAY SEASON.

BIOGRAPHY, RECOLLECTIONS, MEMOIRS.

That veteran publicist and eminent citizen of New York, Mr. John Bigelow, who is now in his ninety-third year, has just completed three volumes of "Retrospections of an Active Life,"¹ in which he not only sets forth his own recollections of events for a period of fifty years ending in 1867 but by reproducing many significant letters and other important documentary material he provides the groundwork of a consecutive history of our national policy for a great part of the period in question. Mr. Bigelow came to New York in the thirties of the last century, and after a few years spent in the profession of the law he entered journalism, becoming the partner and colleague of William Cullen Bryant, of the *Evening Post*, and left that employment to take the post of Consul-General of Paris at the outbreak of our Civil War in 1861. From that time until the close of the Civil War Mr. Bigelow was in a position where he commanded full and intimate knowledge of our relations with France, and particularly of the attempt of the Southern Confederacy to secure the support of the principal European governments. The greater part of these volumes of the "Retrospections" is devoted to the seven years during which Mr. Bigelow was active as a representative of this Government in furthering its interests abroad and circumventing the attempt of the Confederacy to obtain support in France. Many of the letters and other documents included in these volumes are here published for the first time, but even those that have been published by the Government in various official volumes have been comparatively inaccessible to the general reader, and are now arranged in logical order. Mr. Bigelow had a remarkable range of correspondence with American literary men and politicians, and during the time that he occu-

pied the consular post at Paris he received numerous letters from Sumner, Bryant, Longfellow, and other Americans whose interest in our foreign relations at that time was especially acute, and these letters reflect contemporary sentiment in a peculiarly vivid way. Mr. Bigelow was able to render important service by his writings as well as by the influence that he exerted in his official station, and although he did not become Minister to France until the last year of the war, he had already been able

to thwart the purposes of the Confederacy as effectively, perhaps, as if he had represented the country in a higher diplomatic capacity. As American Minister he conducted negotiations that led to the evacuation of Mexico by the French troops after the downfall of Maximilian. Concerning those negotiations the "Retrospections" are rich in new material and must be consulted by future historians of the episode in any attempt to trace the sequence of events. Mr. Bigelow's work is remarkable throughout for its clarity, orderliness, and definiteness of treatment. Each episode in the story is taken up and dealt with by a direct and definitive method. Extraneous material is excluded, and there is practically no wandering from the



JOHN BIGELOW.

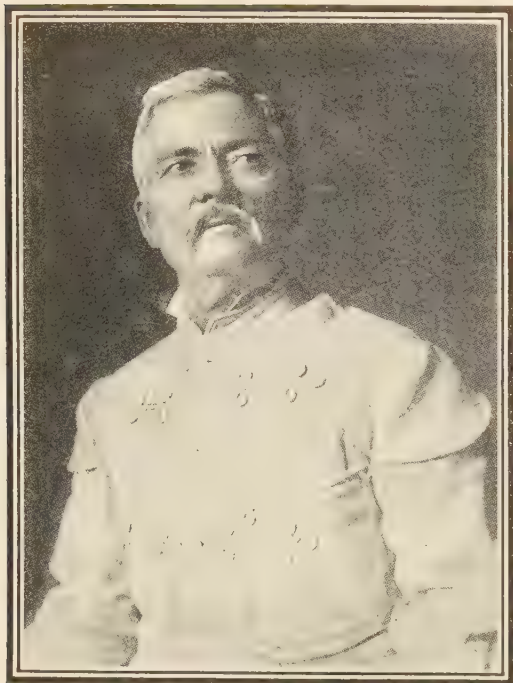
Author of "Retrospections of an Active Life."

straight path of the narrative. Mr. Bigelow's journalistic training and habits are well exemplified in this work, and the burdens of his ninety years rest lightly upon him so far as facility of expression is concerned. It is to be hoped that the series may be continued so as to cover the forty years that have elapsed since Mr. Bigelow's retirement from diplomatic duties, and which have been devoted in the main to literary work.

The world has waited nearly a decade for the authorized autobiography of Henry M. Stanley.² One of the very few men of history who

¹ *Retrospections of an Active Life*. By John Bigelow. Baker & Taylor Co. 3 vols. 1948 pp., ill. \$12.

² *The Autobiography of Henry M. Stanley*. Edited by his wife, Dorothy Stanley. Houghton Mifflin. 551 pp., ill. \$5.



HENRY M. STANLEY.

have been permitted, during their lifetimes to see the full fruits of their labors, Stanley also had the typical career of the Englishman who has served his country at home and abroad. In the autobiography, which has been prepared from a great wealth of material,—journals, letters, and note-books,—there is reproduced the story of the rescue of Livingstone from Stanley's own famous book "Through Darkest Africa," which, in connection with the explorer's own words describing his remarkable career, makes the life story of unusual interest and appeal. Lady Stanley pertinently remarks in her preface upon the fact that her distinguished husband received from the world a good deal of the same ungracious treatment that was accorded to Columbus and other explorers. He was accused of falsehood, forgery, and general rascality. It did not take, however, many months of his Parliamentary career to demonstrate conclusively to the world that Stanley's greatest and most distinguishing characteristic was the ability "to make good." The illustrations of this volume are particularly interesting, and many of them new. Our portrait as given here is reproduced from the frontispiece.

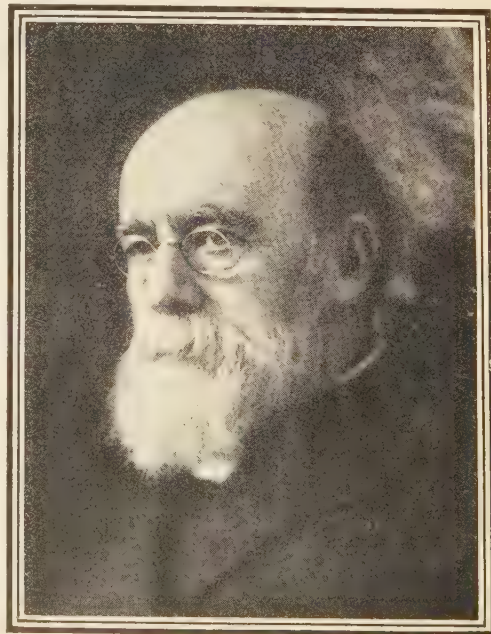
In the opening chapter of his "Recollections" Dr. Washington Gladden modestly disclaims any pretension to important achievements. He describes his story as that of the average American. Nevertheless the period of over half a century that is covered by his volume of "Recollections" is full of historic incident. His boyhood days were passed in the kind of pioneering that was typical of many American family expe-

riences in the decades preceding the Civil War. He was graduated from Williams College in 1859, and served as a clergyman in New York City during the four years of the war. Later he was a member of the staff of the *New York Independent*, but in 1874 he returned to the ministry and has held important pastorates ever since. Dr. Gladden's interest in social questions has made him a prominent contributor to periodicals during the past quarter of a century. He has written many books and taken an important part in the activities of the Congregational denomination. Dr. Gladden's luminous style makes this book of "Recollections" especially attractive.

Mrs. Roger A. Pryor's "Reminiscences of a Long Life" covers almost the same period as Dr. Gladden's "Recollections." Mrs. Pryor was a Virginia woman who went through the perils and sufferings of the Civil War, and then with her husband, the distinguished lawyer Roger A. Pryor, and her little family made a new home in New York City. The Pryors were among the pioneers of the so-called Southern colony in New York, and their recollections of the characteristic Northern attitude toward the "rebels" in the years immediately succeeding the war throw a vivid sidelight on the prejudices and misunderstandings of that time. Judge Pryor won a distinguished professional success in New York in after years, and his wife's "Reminiscences of Peace and War" and other writings have brought her no little literary fame.

Two very entertaining books relating to Illinois politics, chiefly of the latter half of the nineteenth century, have just come from the

² *My Day: Reminiscences of a Long Life.* By Mrs. Roger A. Pryor. Macmillan. 454 pp. \$2.25.



From the Baker Art Gallery, Columbus.

DR. WASHINGTON GLADDEN.

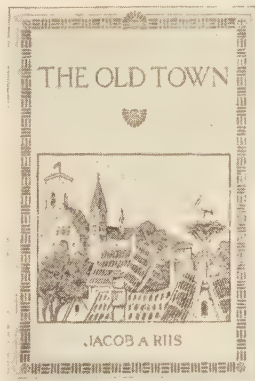
(Author of an entertaining volume of recollections.)

¹ *Recollections.* By Washington Gladden. Houghton Mifflin Company. 431 pp. \$2.

press. Colonel Clark E. Carr has written a searching analysis and review of the career of Stephen A. Douglas,¹ basing his conclusions largely on his personal knowledge of Mr. Douglas' rapid rise to fame, and particularly of the Lincoln-Douglas debates of half a century ago. Although Colonel Carr is himself a Republican, he has become satisfied that scant justice has heretofore been done to Senator Douglas and that his patriotism has not been appreciated. Even before the repeal of the Missouri Compromise and the advocacy of "popular sovereignty" Senator Douglas had become, in Colonel Carr's opinion, the foremost American statesman. Former Vice-President Adlai E. Stevenson relates in his new book, "Something of Men I Have Known,"² a great number of entertaining stories, chiefly relating to public life in Illinois during the past half-century. Mr. Stevenson's acquaintance, however, has extended far beyond the bounds of his State, as during his residence in Washington he came in contact with a great number of public men from every part of the country.

The list of famous men who were born in 1809 seems practically inexhaustible. The last of these to be honored with a biography in this anniversary year is Cyrus Hall McCormick, inventor of the modern reaper.³ Mr. Casson's life of this typical American industrial leader is more than a biographical sketch, since it includes a survey of an industrial era. McCormick's invention made possible the exploiting of our great West as a food-producing section of the country and gave the nation its primacy among the world's granaries. As Mr. Casson observes, "to know McCormick is to know what type of man it was who created the United States of the nineteenth century." Lacking as his life was in picturesque incident, McCormick yet deserves beyond question the title which Mr. Casson bestows on him of the master builder of the modern business of manufacturing farm machinery. "He fed his country as truly as Washington created it and Lincoln preserved it."

In his "Fifty Years in Constantinople"⁴ Dr. George Washburn has embodied the history of Robert College. The history of this institution is of special interest to Americans, by whom it was found-



COVER DESIGN.
(Reduced.)

¹ Stephen A. Douglas, *His Life, Public Speeches, and Patriotism*. By Clark E. Carr. Chicago: McClurg & Co. 306 pp., \$2.

² *Something of Men I Have Known*. By Adlai E. Stevenson. Chicago: McClurg & Co. 454 pp., \$2.75.

³ Cyrus Hall McCormick, *His Life and Work*. By Herbert N. Casson. Chicago: A. C. McClurg & Co. 276 pp., \$1.50.

⁴ *Fifty Years in Constantinople*. By George Washburn. Houghton Mifflin. 302 pp., ill. \$3.



Copyright, 1900, by Falk.

MRS. ROGER A. PRYOR.

(Author of "Reminiscences of a Long Life.")

ed and to whom it is indebted for a long series of benefactions. Dr. Washburn's book has one other feature of almost equal interest, and that is a review of the last fifty years of Turkish politics leading up to the recent revolution.

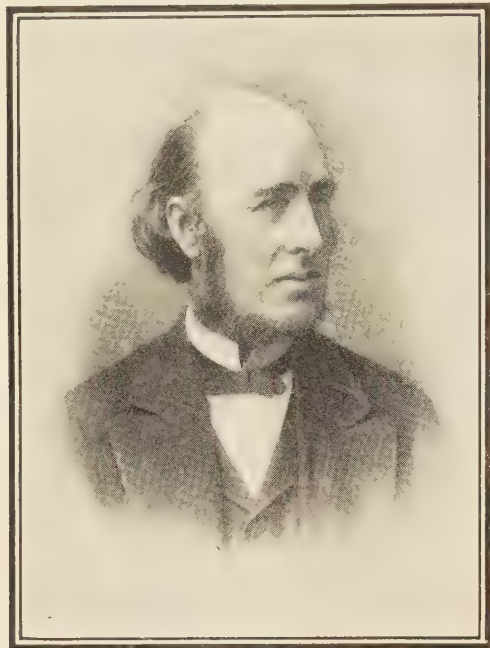
Heretofore in his writings Mr. Jacob A. Riis has dealt almost entirely with American topics. In his latest book he has seen fit to go back to the Old World and relate what he remembers of his boyhood days in Denmark. His descriptions of the simple customs and pastimes of "The Old Town"⁵ make entertaining reading for the American boy or girl of to-day. The illustrations by W. T. Benda are especially effective.

For a generation there has been a Verlaine "mystery." Just how much of this mystery has been due to the lack of biography and an understanding of the troubled years in Paris, during which the "absinthe poet" lived his strangely incoherent life, is perhaps for the first time cleared up by a rather elaborate,—often tediously elaborate,—volume by Deputy Lepelletier, a representative from Paris in the French Parliament.⁶ It was to this statesman that the poet, upon his death bed, confided the task of defending his reputation.

The influence of the seventeenth and eigh-

⁵ *The Old Town*. By Jacob A. Riis. Macmillan. 269 pp., ill. \$2.

⁶ *Paul Verlaine, His Life and Work*. By Edmond Lepelletier. Duffield. 463 pp., ill. \$3.50.



WILLIAM EDWIN HARTEPOLE LECKY.

Frontispiece (reduced) from "A Memoir of W. E. H. Lecky," written by his wife, Elizabeth Lecky.

teenth century woman in France upon the public life and the arts and letters of the period is strikingly set forth in a number of biographical volumes treating of eminent leaders of political and literary salons, which have recently come from the press in this country and in England. "Madame,"¹ who was Elizabeth Charlotte, daughter of Carl-Ludwig, Elector of the Palatinate, became the "friend" of Louis XIV, King of France, and for years was the main-



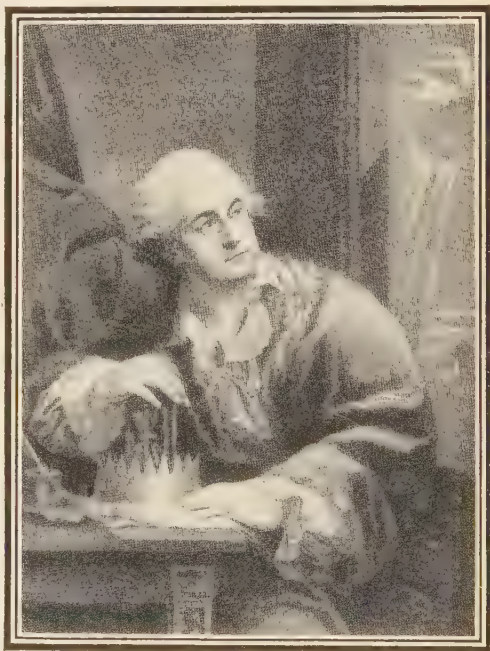
BACH'S BIRTHPLACE IN EISENACH.
From "Life of Johann Sebastian Bach."

spring of a vast amount of political activity and speculation, particularly in the relations between France and the German states. Most of the illustrations in this volume are new to the present generation. Arvède Barine will be re-

¹ Madame: Mother of the Regent. By Arvède Barine. Putnams. 346 pp., ill. \$3.

membered as the author of "La Grande Mademoiselle." The translator of this book is Jeanne Mairat. "A Lady of the Old Régime,"² whose life picture Mr. Henderson has given us, was also the "Madame" of the volume already referred to. Mr. Henderson treats the subject with perhaps less sympathy than Madame Barine. The pictures in his volume, however, provide excellent supplementary testimony to the graphic presentation in the other volume.

Having just replied to a letter of inquiry from a reader of this REVIEW that the most important works of the late William Edwin Hartepole Lecky were "The History of England in the Eighteenth Century," "The History of European Morals," and "Democracy and Lib-



STANISLAUS PONIATOWSKI, THE LAST KING OF
POLAND.

erty," we are prepared to find proper emphasis laid upon these works—as indeed we do find—and the character of that eminent man of letters in the "Memoir"³ which has just come from the press of Longmans. Lecky was a member of the French Institute and of the British Academy, a man of great political prominence in Great Britain, and the recipient of virtually all the degrees that science and literature can bestow. He was an Irishman by birth, and to this fact, his wife thinks, can be traced many of his great qualities.

Dr. W. L. Cross (who holds the chair of English in the Sheffield Scientific School at Yale) has an admiration for Laurence Sterne⁴

² A Lady of the Old Régime. By Ernest F. Henderson. Macmillan. 239 pp. \$2.50.

³ A Memoir of W. E. H. Lecky. By his wife, Elizabeth Lecky. Longmans, Green & Co. 432 pp., ill. \$2.50.

⁴ Life and Times of Laurence Sterne. By Wilbur L. Cross. Macmillan. 555 pp., ill. \$2.50.



THE EMPEROR FRANCIS JOSEPH AND QUEEN VICTORIA AT CIMIEZ IN MARCH, 1897.

Reduced from "Das Buch vom Kaiser." M. Herzig. Illustration (reduced) from "Francis Joseph and His Times."

and an opinion of his importance to literature which may be understood from the fact that he regards 555 pages of literary biography as only "reasonable compass" for the personal story of the author of "The Sentimental Journey." As literary biography this work is very full and complete. The illustrations present Sterne in some new aspects.

Bach, according to the writings of those most entitled to speak, is the greatest figure in the history of music for more than one reason, principally, however, because (as Dr. Hubert Parry tells us in his recently issued biography¹) he not only "went on educating himself and expending his resources" all his life, but "his career was unified by all the persistence of the strong and decisive qualities of character and temperament characteristic of the race and period to which he belonged." Dr. Parry's own researches into the history of music and musical personalities have made him pre-eminently the person to write the life story of such a great personality. For a decade Dr. Parry was professor of music at Oxford University, and for more than that period he has been an eminent authority on Bach.

For many years Sir Horace Rumbold was British Ambassador to the Court at Vienna. His personal acquaintance with Emperor Francis

Joseph and his intimate knowledge of the forces and facts which have molded the character of the aged Austro-Hungarian monarch, supported by the intelligent sympathy this British envoy has always shown for the problems confronting the ruler of the "dual monarchy," make "Francis Joseph and His Times"² an unusually stimulating and suggestive volume. Rarely, if ever, we think, has the fascinating, somber story of the Hapsburg family tragedy been so intelligently and sympathetically put in an English book as in Sir Horace's volume.

The central figure in the dark but fascinating drama that marked the extinction of Poland from the family of nations was Stanislaus Poniatowski, the last Polish king. In a scholarly and strongly written volume³ Mr. R. Nisbet Bain has just given us a mirror of this period in a character sketch of the statesman who, in his own personality, exemplifies so well the "social, moral, and intellectual conditions of Polish society at a moment when the Polish state was about to disappear for ever from the map of Europe." Mr. Bain's treatment of the last Polish king is frank yet sympathetic. A number of comparatively unknown illustrations and portraits add to the historical and human interest of this biography.

² Francis Joseph and His Times. By Sir Horace Rumbold. Appleton. 404 pp., ill. \$4.

³ The Last King of Poland. By R. Nisbet Bain. Putnam. 296 pp., ill. \$3.

¹ Johann Sebastian Bach. By Sir Hubert Parry. Putnam. 584 pp., ill. \$3.50.



DR. GEIL AT THE END OF THE GREAT WALL OF CHINA.

TRAVEL AND DESCRIPTION.

Two noteworthy books on China and the Chinese mark the fall book season. While Dr. Isaac Taylor Headland's volume, "Court Life

¹ Court Life of China. By Isaac Taylor Headland. Fleming H. Revell Company. 372 pp., ill. \$1.50.

of China,"¹ is, in the main, a description of the officials and people of the Chinese capital, it is also more strongly a sketch of the life achievements of that wonderful woman, the late Empress Dowager. For twenty years, while Dr. Headland was professor in the Peking University, his wife was physician to the family of the Empress Dowager, and also to many princesses and other ladies of the court. This work, which is their joint effort, is therefore full of interesting descriptions of court procedure and conditions in the celebrated empire such as the Western world does not often have set before it. Dr. Geil's "Great Wall of China"² is a travel book of extraordinary and absorbing interest. Only very recently he returned to this country from an extended tour through China, during which he explored and studied the Great Wall from the Yellow Sea to Tibet. He was the first man to traverse the entire length of this ancient fortification, and his most noteworthy contribution to the subject is the announcement that it is not one, but at least a dozen walls, that the Chinese have built in the course of their centuries of defense against the barbarians from the North. Dr. Geil's style is clear and entertaining. The volume is full of illustrations that really illustrate, most of them taken from photos made by the author. Dr. Geil, it will be remembered, is already the author of one other noteworthy book on China, "A Yankee on the Yangtse."

After walking more than 4000 miles during a year's hunting trip in Africa, Dr. William S. Rainsford, nationally known as the former rector of St. George's Church, New York, can properly be regarded as an authority on the game possibilities of the Dark Continent. In a

² The Great Wall of China. By William Edgar Geil. Sturgis & Walton. 393 pp., ill. \$5.



CHINESE UPPER CLASS WOMAN IN WINTER COSTUME.

(From "Court Life in China.")

vividly written volume, "The Land of the Lion,"¹ Dr. Rainsford gives some very graphic descriptions of the conditions of human and animal life in Africa. His viewpoint is that of the observant man of culture whose mind and heart are alive to even the smallest detail. A number of rather unusual illustrations from photographs by the author complete the volume.

A rather more ambitious volume on the conditions of life and living in Mexico than usual is W. E. Carson's "Mexico, the Wonderland of the South."² The sure touch of the man who knows his subject intimately is evident throughout. Mr. Carson has seen and understands the causes of the wonderfully strange contrasts and picturesque light and shade that characterize the land and people in our neighbor to the south. Mexico is the meeting place of the ancient and the modern. This fact is graphically and suggestively brought out in the volume under discussion, which, moreover, is a book of real human interest. Mexico, Mr. Carson thoroughly believes, is being actively Americanized. He also believes that the present and future of the country are to be far more impressive than its past. The illustrations are good and plentiful.

A traveler who can describe what he has seen with vivid appeal has at last visited Tripoli, the only Mohammedan ruled state in North Africa and the last Turkish possession on that continent. This traveler, Mr. Charles Wellington Furlong, has described the quaint life, customs, industries and people of this most native of the Barbary capitals in a volume which he has entitled "The Gateway to the Sahara."³ Incidentally he also gives an entertaining account of how he discovered the wrecked hull of the United States frigate *Philadelphia*, which, it will be remembered, was burned by Tripolitan pirates in the year 1804.

Besides being thoroughly imbued with his subject and enthusiastic about it, Dr. Edward A. Steiner is a capital story teller. Readers of his book "On the Trail of the Immigrant," now in its fifth edition, will agree with this judgment, and, moreover, they will be pleased to find these characteristics exemplified for higher appreciation in Dr. Steiner's later work, "The Immigrant Tide, Its Ebb and Flow."⁴ This book is in two sections. Under the heading "The Outgoing Tide" he shows us the influence of the returning immigrant upon his peasant home, his social and native life. In this connection our readers will recall Dr. Steiner's article, "How Returning Emigrants Are Americanizing Europe," which appeared in this REVIEW for June last. In the second section, entitled "The Incoming Tide," he interprets the relation of the various races to our institutions, their attitude toward them and their ultimate influence upon them.

Mr. Norman Duncan, in his account of "Dr. Luke of the Labrador," is fond of making sentimental journeys into the classic lands of Christian story and of writing appealing poetic ac-



CHARTRES CATHEDRAL, WEST FRONT.

Illustration (reduced) from "French Cathedrals," by Elizabeth Robins Pennell.

counts of these same journeys. Some time ago he and a young artist, Lawren Harris, took an extended journey through Palestine, covering the same country traversed by Mary and Joseph in Bible days. Their experiences Mr. Duncan relates in his book, "Going Down from Jerusalem,"⁵ which has been illustrated by Mr. Harris. Good supplementary reading to Mr. Duncan's book can be found in Miss Hazard's "Brief Pilgrimage in the Holy Land."⁶ Miss Hazard, who is president of Wellesley College, recounted her personal experiences on a recent tour through Palestine in a series of lectures delivered under the title of this book to the students at Wellesley.

The regular artistically illustrated travel books of the season cover a wide range this year. French history and the French people as usual come in for a large part of the consideration. Among the elegantly printed and illustrated descriptive volumes of travel in modern and medieval France probably the most noteworthy is one entitled "French Cathedrals,"⁷ by Elizabeth Robins Pennell, and illustrated with

¹ The Land of the Lion. By W. S. Rainsford. Doubleday, Page. 459 pp., ill. \$3.80.

² Mexico, the Wonderland of the South. By W. E. Carson. Macmillan. 489 pp., ill. \$2.25.

³ The Gateway to the Sahara. Charles Wellington Furlong. Scribners. 306 pp., ill. \$2.50.

⁴ The Immigrant Tide: Its Ebb and Flow. By Edward A. Steiner. Reveli. 369 pp., ill. \$1.50.

⁵ Going Down from Jerusalem. Norman Duncan. Harper & Bros. 210 pp. \$1.50.

⁶ A Brief Pilgrimage in the Holy Land. By Caroline Hazard. Houghton Mifflin Company. 138 pp., ill. \$1.25.

⁷ French Cathedrals. By Elizabeth Robins Pennell. Century Company. 424 pp., ill. \$5.



"A GRANDFATHER."

Illustration by Mortimer Menpes (reduced) from
"China."

183 pictures in color and black and white pen work by Joseph Pennell. From the standpoint of general typography and illustration this volume leaves nothing to be desired. Its preparation, the author tells us, required twenty years' living and study in the cathedral towns of France. We have had occasion before to speak of the entertaining and dainty illustrations of Mr. Ernest Peixotto, in his description of French rural and historic memorials. In "Through the French Provinces"¹ he has given us another of these beautiful travel volumes. In "A Wanderer in Paris,"² Mr. E. V. Lucas has skillfully blended the results of a delightful modern "loitering tour" through the French capital, with comments on art and side-lights on architecture. The illustrations in color in this volume are by Walter Dexter. Across the Rhine there is even more romance to be found in the historical remnants of medieval Germany. Robert Haven Schaffer has been a little more intimately human and personal in his entertaining volume, "Romantic Germany."³ The color illustrations in this volume by a number of well-known German illustrators take us from Danzig—"the port of Poland"—through Berlin and many other German cities to Munich, "the city of good nature." "Seven English Cities"⁴ is

¹ Through the French Provinces. By Ernest Peixotto. Scribners. 241 pp., ill.

² A Wanderer in Paris. By E. V. Lucas. Macmillan. 330 pp., ill. \$1.75.

³ Romantic Germany. By Robert Haven Schaffer. Century Publishing Company. 389 pp., ill. \$3.50.

⁴ Seven English Cities. By W. D. Howells. Harper Bros. 200 pp., ill. \$2.

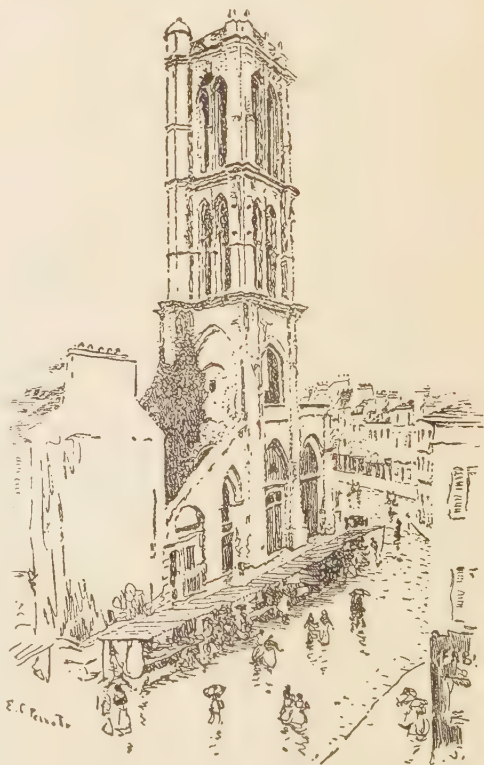
the way Mr. William Dean Howells has entitled his last volume of leisurely literary meanderings through Liverpool, Manchester, Sheffield, York, Lancaster, Cambridge and the little Welsh towns of Aberystwyth and Llandudno, the last two, in Mr. Howells' indulgent, easy-going mathematics, counting for one. Seen through the eyes of an artist author with historical and artistic comment interspersed is what Edward Hutton has given us in his title "Rome."⁵ There are sixteen illustrations in color by Maxwell Armfield, and a dozen other illustrations. To China is our next long step with the artist traveler. A very sympathetic, human quality runs through the illustrated story of an artist's trip through the Celestial Kingdom, which comes to us as the joint work of the artists Mortimer Menpes⁶ and Sir Henry Arthur Blake. This is one of the finely illustrated volumes brought out by Black, of London, and imported by the Macmillans.

HOLIDAY PUBLICATIONS.

The usual number of holiday editions of the classics and of artistic compilations suitable for the holiday season have come from the press of the great publishing houses. They are characterized by elegance of binding and attractive illustrations. We have received among

⁵ Rome. By Edward Hutton. Macmillan. 342 pp., ill. \$2.

⁶ China. By Sir Henry A. Blake and Mortimer Menpes. Macmillan. 139 pp., ill. \$1.50.



TOWER OF ST. MACLON, MANTES.

Illustration (reduced) from "Through the French Provinces."

others in this category Harrison Fisher's "American Beauties" (Bobbs Merrill), with decorations in color by E. S. Crawford; two books of poems by James Whitcomb Riley, "Riley's Roses" and "Old School Day Romances" (Bobbs Merrill); a new edition of the famous Rubáiyát of Omar Khayyám, by Mr. Arthur Guiterman (Paul Elder), showing taste and scholarly erudition, with some excellent reproductions of illustrations by Gilbert James; "Christmas in Art," by Frederick Keppel (Duffield), with illustrations reproduced chiefly from rare prints; "The Book of Christmas" (Macmillan), with illustrations by George Wharton Edwards and an introduction by Hamilton Wright Mabie; "Friendship" (Putnam), being the essays on that subject by Cicero and Emerson, the book being decorated by Edith Cowles; "What Does Christmas Really Mean?" by John J. McCutcheon and Jenkin Lloyd Jones (Forbes); "Beasley's Christmas Party," by Booth Tarkington (Harpers); Dickens' "Christmas Carol" (Duffield); "George Eliot," in eight volumes, in the well-known limp leather binding and thin paper holiday series of Crowell & Co.; the poems of Wordsworth and Lowell, in the same binding from the same publishers; "Victor Hugo" in eight volumes, in the Handy Library Edition brought out by Little, Brown & Co., and "Gulliver's Travels" and the Lamb "Tales from Shakespeare" (Dutton), illustrated in color by Arthur Rackham.

Three exceptionally interesting calendars for 1910 have just been issued by a Philadelphia house. One, a "Lincoln Story Calendar,"¹ is a continuation of a publication which proved so successful as a feature of the Lincoln centenary year just drawing to a close. This is said to have been the first attempt to combine biography and anecdote in a calendar. The little line drawings accompanying the text are very clever. A similar compilation is the "Dickens Story Calendar,"² which offers a complete sketch for every week of the year. The selections represent Mr.



REV. T. CALVIN
MC'LELLAND, D.D.

(Author of "The Mind
of Christ.")

Pickwick, Sam Weller, Wilkins, Micawber, David Copperfield, little Nell, Oliver Twist, and many other famous Dickens characters, and are accompanied by miniature reproductions of the work of Cruikshank and other famous artists with whom all readers of the standard editions of Dickens' novels are familiar. "The Garden Calendar"³ is a unique attempt to give needed directions for gardening in the form of a special injunction for each day of the year. Its chief embellish-

ment is a color drawing by Emien McConnell. The text was compiled by Ellen P. Williams.

THEOLOGICAL AND RELIGIOUS WORKS.

Among the thoroughly educated, miracles have been transferred from their former place among the evidences of Christianity to its luggage. This is the standpoint of Dr. Gordon, the scholarly pastor of the Old South Church, Boston, in his book, "Religion and Miracle."⁴ The two principles underlying the question of the reality of miracles are the scientific conception of law and the religious conception of the imminence of God; the former makes miracles logically possible; the latter tends to make them superfluous. The tone of Dr. Gordon's discussion is profoundly religious and he is intent on the preservation of essential Christianity.

Antipodal to Dr. Gordon's work is that of Lieutenant-Colonel Turton, formerly of the British Army,—"The Truth of Christianity."⁵ It identifies Christianity with the entire mass of beliefs once held generally in Protestant churches—e.g., that the doctrine of the Trinity is recognized in the first chapter of Genesis. The many editions of this book show the need of a better educated laity.

How the revolutionary change from Colonel Turton's medieval to Dr. Gordon's modern standpoint may be effected without shaking faith in essential historic Christianity, Dr. Clarke, the veteran professor of theology in Colgate University, shows in his "Sixty Years with the Bible."⁶ As the story of his own experience, it is meant to be helpful to those who shrink from an attempt deemed perilous. His record of decade after decade of growing light is the story of a truth-seeker both cautious and candid.

Like Professor Clarke, Professor Foster, of Chicago, his fellow Baptist, has a pedagogic motive for his book, "The Function of Religion in Man's Struggle for Existence."⁷ He writes for young skeptics whom intellectual perplexities tempt to discard religion. He would help those who "would rather have a minimum that was sure than a maximum that was not." Consequently he concedes much to their doubts, so much as to stir tough-minded believers to indignant censure. His work bears the marks of the hasty preparation, he admits. So good a purpose needed more careful execution.

Writing, like Professor Foster, for skeptics, but not disposed to take with him "the sunnier side of doubt," Professor Rowland, of Mount Holyoke College, insists on "The Right to Believe."⁸—the right of sound reason to hold to the fundamental religious beliefs. It is a keen and strong argument that she builds up from a small starting point of common ground. Its value for skeptics is lessened when she proceeds to buttress the traditional Christology.

Some of Bishop Williams' sermons this year

⁴ Religion and Miracle. By Dr. Geo. A. Gordon. Houghton Mifflin Company. 244 pp. \$1.30.

⁵ The Truth of Christianity. Lt.-Col. W. H. Turton. Putnam. 604 pp. \$1.25.

⁶ Sixty Years with the Bible. William Newton Clark. Scribner. 259 pp. \$1.25.

⁷ The Function of Religion in Man's Struggle for Existence. By Geo. Burmen Foster. Chicago: The University of Chicago Press. 293 pp. \$1.

⁸ The Right to Believe. By Eleanor Harris Rowland. Houghton Mifflin Company. 202 pp. \$1.25.

¹ The Lincoln Story Calendar. By Wayne Whipple.
² The Dickens Calendar. By J. L. Engle. ³ The Garden Calendar. By Ellen P. Williams. Philadelphia: Franklin Publishing Company.

furnished good "copy" for newspapers. Some of it is recognizable in his volume, "A Valid Christianity for To-Day."¹ The fundamental truth that gives point and weight to these eighteen discourses is that the tree is tested by its fruits, not by its roots. Democracy needs leadership by men of vision. Can Christianity fur-



BISHOP CHARLES D. WILLIAMS.

(Author of "A Valid Christianity for To-day.")

nish them? That is the crucial question to-day. One such is the preacher of these sermons, and his tribe increases steadily.

Unlike any of the foregoing is Dr. McClelland's "Mind of Christ,"² in that it is free from any breath of controversy. It undertakes to state to plain people what Jesus thought of God, of himself, and of other men. The theology involved in it is distinctively modern, and it is luminous both in thought and in expression.

The addresses given a year ago at St. Louis before the first meeting of the Methodist Federation for Social Service, and published under the title of "The Socialized Church,"³ affirm that Christianity must be adjusted to the real life of the people. They deal with the particular questions raised by the effort to do so, and are marked by experience, human sympathy, and good sense.

To his labors during a quarter-century for Church Unity,⁴ Professor Briggs adds, under that title, a volume of studies on the important problems it involves. He is imbued with the spirit of St. Paul in his willingness to concede partial interests to universal. He views Protes-



PROFESSOR RUDOLF EUCKEN.

(Author of "The Problem of Human Life.")

finds only darkness on the subject elsewhere, even in the teaching of Jesus. "Bioplasmic substance" constitutes a spiritual body within the mortal body, and this is immortal, the permanent abode and organ of conscious personality.



REV. OTIS CARY.

(Author of "History of Christianity in Japan.")

man's creative spiritual work will prevail against temporary negations, and in new forms embody eternal truths.

The fiftieth anniversary of modern missions in Japan has been commemorated by a veteran and scholarly missionary there, the Rev. Otis Cary, in his "History of Christianity in Japan."⁵ How Catholic missions flourished in the sixteenth century, were cruelly extirpated in the seventeenth, and revived in the nineteenth, then the rise, vicissitudes, and expansion of Protestant missions since 1859, form a story of remarkable interest, especially to Americans. The official documents and personal memoranda in these two volumes make them valuable for reference.

tantism not as passing away, but as passing on to the ideal of the religion of Jesus; Catholicism also as advancing toward that nobler type, and the spirit of genuine Modernism as the mediator of this great evolution.

Mr. Henry Frank, the minister of an independent religious congregation in New York, searching for "Modern Light on Immortality,"⁶ finds it in the researches of biology and physics. This is the instructive part of his volume; its first half finds only darkness on the subject elsewhere, even in the teaching of Jesus. "Bioplasmic substance" constitutes a spiritual body within the mortal body, and this is immortal, the permanent abode and organ of conscious personality. To this, as confirmatory of the Gospel, no Christian need object.

An admirable volume by the recipient of the Nobel prize for literature in 1908, Professor Eucken, of Jena, shows how the great thinkers from Plato to our time viewed "The Problem of Human Life,"⁷ its purpose, aim, and goal. That conceptions are determined by life, not life by conceptions, is his main thesis. Experience, he contends, justifies faith that

¹ A Valid Christianity for To-day. By Rt. Rev. Chas. D. Williams. Macmillan Company. 289 pp. \$1.50.

² The Mind of Christ. By T. Calvin McClelland. D.D. Crowell. 209 pp. \$1.25.

³ The Socialized Church. By Worth M. Tiple, D.D. Eaton & Mains. 288 pp. \$1.

⁴ Church Unity. By Chas. A. Briggs, D.D. Scribners. 459 pp. \$2.50.

⁵ Modern Light on Immortality. By Henry Frank. Boston: Sherman Frank & Co. 467 pp. \$1.85.

⁶ The Problem of Human Life. By Rudolf Eucken. Chas. Scribner's Sons. 581 pp. \$3.

⁷ A History of Christianity in Japan. 2 vols. By Otis Cary, D.D. Revell & Co. 423 pp. \$2.50.

The necessity of reconstructing the fifth century doctrine of sin, inherited by the Church from Augustine, is clearly shown by Dr. Burton, the president-elect of Smith College, in a keenly critical monograph on "The Problem of Evil,"¹ addressed to learned theologians. In his dissection of error from the truth to which it was wedded in Augustine, he repeatedly points out that evolution explains what Augustine failed to explain; *i.e.*, sin is the culpable failure to moralize our non-moral inherited animalism.

With the laudable aim of laying before the great body of intelligent people in the English-speaking world the precise results of scholarship in the domain of religious thought, and this in a brief, attractive form, Dr. Ambrose W. Vernon is editing a series entitled "Modern Religious Problems."² Dr. Ernest F. Scott (Queen's University, Kingston, Canada) contributes the volume, "The History and Religious Value of the Fourth Gospel; Dr. George William Knox (Union Theological Seminary) writes an interpretation for the modern mind of "The Gospel of Jesus, the Son of God"; President William Dewitt Hyde (Bowdoin) discusses "Sin and Its Forgiveness," and Dr. Benjamin W. Bacon (Yale) outlines the history of the "Founding of the Church."

A recently issued booklet entitled "A Chapel in Every Home"³ is a sincerely worded appeal for the setting aside in every home of some room or corner to be used as a place of prayer or meditation. It contains the endorsement of the idea by a number of church officials. The author has printed the little volume at his own expense for distribution, "for no other purpose than as a contribution for the general betterment of humanity."

ENCYCLOPEDIAS OF RELIGIOUS KNOWLEDGE.

The sixth volume of "The Catholic Encyclopedia"⁴ has recently come from the press. Among the topics of special interest treated in this volume are "Fathers of the Church," "Flagellants," "Biblical Geography," and "The Holy Grail." In the article on France the subject of recent French legislation against certain religious foundations is discussed from the point of view of the Church. There is also in this volume a thorough discussion of the philosophic doctrine of free-will, to which Catholic philosophers are strongly committed.

The work which occupies a place in Protestant literature corresponding very closely with that filled by the "Catholic Encyclopedia" in the literature of the Roman Church is a new revision of the "Schaff Herzog Encyclopedia,"⁵ a work that is to be completed in twelve volumes, treating of 15,000 distinct topics, and prepared by more than 600 editors and collaborators. Among the articles on archeological subjects included in

this volume is Prof. George H. Gilman's contribution on "Hammurabi and His Code." Our readers will recall the fact that this code was



PROF. JOHN P. MAHAFFY.

(Author of "What Have the Greeks Done for Modern Civilization?")

discovered at Persepolis in 1901, and has been assigned to a period some 2050 years B. C.

LOMBROSO ON PSYCHIC PHENOMENA.

For many years the late Prof. Cesare Lombroso (whose death was recorded in these pages last month) declined to investigate the subject of psychic phenomena, although his eminence as a psychologist had frequently brought him in contact with many facts and suggestions pointing to the existence of spiritistic apparitions. Finally, however, in the last years of his life, he faced the problem and began an energetic investigation of it. In a volume which has come from the press since the death of the scientist and which has the startling title of "After Death—What?"⁶ Professor Lombroso calmly and frankly surveys the whole field of the subject from early historic times. The translation of this volume from the Italian has been made by William S. Kennedy.

HISTORY AND POLITICS.

Two scholarly volumes on the contribution of Greece to modern civilization come from the pens of well-known Hellenists in this country and in England. Professor Walden (formerly of Harvard) discusses "The Universities of Ancient Greece,"⁷ directing his attention particularly to Greek "higher education in the last five centuries of Hellenism," while Dr. Mahaffy (Oxon.), now of Trinity College, Dublin, in a volume made up of the Lowell Lectures of 1908-1909, which he has entitled "What Have the

¹ The Problem of Evil. By Rev. Marion LeRoy Burton. Chicago: The Open Court Publishing Company. 234 pp. \$1.25.

² Modern Religious Problems. 4 vols. Edited by Ambrose W. Vernon. Houghton Mifflin Company. 50 cents each.

³ A Chapel in Every Home. By Joseph R. Wilson. Published by the author at Commonwealth Building, Philadelphia. 48 pp.

⁴ The Catholic Encyclopedia. Vol. 6. Robert Appleton Company. 816 pp., ill. \$6.

⁵ The New Schaff-Herzog Encyclopedia of Religious Knowledge. Funk & Wagnalls Company. Vol. V, 524 pp. \$5.

⁶ After Death—What? By Cesare Lombroso. Boston: Small, Maynard & Co. 363 pp., ill. \$2.50.

⁷ The Universities of Ancient Greece. By John W. H. Walden. Scribners. 367 pp. \$1.50.

Greeks Done for Modern Civilization?"¹ attempts to cover the whole field of Greek influence, "not only in the various arts in which such influence is generally realized, but also in those departments of thinking in which moderns arrogate to themselves an unquestioned superiority."

Some months ago we noticed the first two volumes of Mr. Alexander's very interesting "Political History of the State of New York."² The third volume, which has just appeared, covers two important decades, beginning with the outbreak of the Civil War in 1861 and closing with the election of Grover Cleveland as Governor of the State. Although the names of most of the personages that figure in this history are well known even to the present generation, the men themselves have nearly all passed off the stage. In the Civil War era the names of Thurlow Weed, Horatio Seymour, William H. Seward, and Horace Greeley are continuously at the front in New York State politics. Later come Roscoe Conkling, Samuel J. Tilden, and Grover Cleveland. Important episodes in the story are the rise and fall of Tweed in New York City, Tilden's successful campaign against the "canal ring," and the issue in the Republican party between "Stalwarts and Half-breeds," in 1880-81, which had its origin in national rather than State politics.

English writers on America do not usually wait till they have lived thirty years in the country before publishing their views. This, however, is what Mr. A. Maurice Low has done, and his "Study in National Psychology"³ will be received the more kindly because of the author's deliberation in acquiring data. Mr. Low began nine years ago his investigation of the causes that have produced the American mind. His treatment of the subject is not completed in the present volume, but will be continued in a later volume.

Both before and since the Civil War it has been almost universally held in the North that Virginia was strongly pro-slavery in sentiment as well as hostile to the Union. Mr. Beverley B. Munford now presents the view that the State was strongly anti-slavery in sentiment, and at the same time friendly to the Union, and that the influences which finally impelled Virginia to secede must be traced to other causes. Mr. Munford marshals an imposing array of historical documents and brings to the support of his position facts which it would be found extremely difficult if not impossible to gainsay.⁴

Some very vivid descriptive historical writing is to be found in Mr. Martin Hume's latest work, entitled "Two English Queens and Philip."⁵ Of course, the two English queens are Mary and Elizabeth, and the volume is an account of the marriage of the mature Mary of England to the young Philip of Spain, of English-Spanish relations after her death, and of

Philip's vain offer of his hand to Mary's successor, Elizabeth. This volume is illustrated with reproductions of rare and exceedingly interesting portraits of many worthies of the time, including Queens Mary and Elizabeth, Cardinal Pole, and Dudley, Earl of Leicester.

AS TO OUR FOREIGN RELATIONS.

A spirit of chastened self-realization is becoming evident in an increasing number of books on our foreign relations. In fact a respectable proportion of the discussion of our relations with the rest of the world since the close of the Spanish war have earnestly attempted to sober the "jingoism" which, if natural under the circumstances, was not conducive to healthy growth. Among the particularly noteworthy, sane stories of our actual relations with the rest of the world which have come to hand during recent weeks are two calm studies of our military record and efficiency, and one very frank analysis of our power and limitations in the field of international diplomacy. Mr. Homer Lea, who writes with a vigorous, picturesque style, discusses in "The Valor of Ignorance"⁶ the total unpreparedness of the United States for war. He calmly, convincingly, and mercilessly proves the possibility of a Japanese conquest of the western half of the United States. The American nation is, Mr. Lea contends, an unmilitary, rich, and arrogant one. "Our wealth is no safeguard against a well-organized and determined foe, and arbitration is an illusion." This, set forth in more than 300 pages of entertaining reading, makes up the volume, which has an introduction by Lieutenant-General Adna R. Chaffee. The crucial military events in our history set forth in consecutive narrative, with causes traced and analyzed, make up the useful volume edited by Ripley Hitchcock, which has been entitled "The Decisive Battles of America."⁷ The separate battles have been chosen according to their significance, as determined by the standards adopted by Creasy. The accounts are from the pens of a number of well-known American authors, and the volume is illustrated with views, maps, and, moreover, is provided with a consecutive chronology. With the purpose of "drawing attention to the duty of diplomacy to further our foreign policy in different regions of the world, and to the consideration of natural securities upon which rest its assertion," the vigorous writer, who has not seen fit to disclose his identity further than to call himself "A Diplomatist," discusses with almost brutal frankness "American Foreign Policy."⁸ We have only lately begun to realize, he says, the limitations of our national resources. "Most of us further understand the need for a navy for protection as an insurance against war." We have still to be aroused to the necessity of an efficient diplomacy as an adjunct to the navy, both in the extension of our commerce and influence abroad and in the preservation of peace with which to carry out the national policies. Upon these themes the discussion in this meaty little volume is based.

¹ What Have the Greeks Done for Modern Civilization? By John P. Mahaffy. Putnam. 263 pp.

² Political History of the State of New York. Vol. 3. By DeAlva Stanwood Alexander. Holt & Co. 561 pp. \$2.50.

³ The American People. By A. Maurice Low. Houghton Mifflin. 468 pp. \$2.25.

⁴ Virginia's Attitude Toward Slavery and Secession. By Beverley B. Munford. Longmans, Green & Co. 304 pp. \$3.

⁵ Two English Queens and Philip. By Martin A. S. Hume. Putnam. 498 pp. \$4.50.

⁶ The Valor of Ignorance. By Homer Lea. Introduction by Lieutenant-General Adna R. Chaffee. Harper & Bros. 342 pp. ill. \$1.80.

⁷ The Decisive Battles of America. Edited by Ripley Hitchcock. Harper & Bros. 396 pp. \$1.50.

⁸ American Foreign Policy. By a Diplomatist. Houghton Mifflin Company. 192 pp. \$1.25.



Illustration (reduced) from "The Animals in the Ark."

THE SEASON'S BOOKS FOR CHILDREN.

THIS year it is through the picture books that the publisher offers his most attractive juvenile wares.

"The Seven Ages of Childhood," by Carolyn Wells (Moffat, Yard), contains many colored reproductions of drawings by Miss Jessie Willcox Smith. The artist's outline is no longer hard and prominent, but the picture melts together like a water-color painting, and values and shadow tones are more correctly reproduced than heretofore. The Plimpton Press, of Norwood, Mass., is to be congratulated upon its well nigh perfect printing. The illustrations of "The Epicure" and of the "Lover" are almost as perfect in tints as original water-colors. The cover design of a child in rompers, relieved against a background of blue, in imitation of glazed ware, is a happy paraphrase of a Lucca della Robbia bambino. Altogether the book is an ideal Christmas gift.

"Grimm's Animal Stories" translated by Lucy Crane (Duffield) is sure to appeal to the young lover of picture books. Although the characters in the illustrations by Mr. John Rae do not stand out clearly from the background, the artist has shown a correct eye for perspective and for decorative effects.

Cecil Aldin is an expert in dog delineation. "A Cenceited Puppy," which he has illustrated and for which Walter Emanuel has written the text (Dutton), is more for grown-ups than for young people on account of the sarcasm of the text; but his quarto picture book "Pickles" (Hodder & Stoughton) is just what lit-



Illustration (reduced) from "Pickles."

tle folks will like. The pictures, in a good strong crayon outline, on buff paper, with splashes of frank green, orange, and red, are full of animal action and expression.

Maria L. Kirk, who illustrated Rip Van Winkle last year, has this year illustrated Norreys J. O'Connor's translation of Adelheid Wette's "Hänsel and Gretel" (Stokes). Owing to the vogue that the Humperdinck opera has had in New York for the last three or four seasons, we should think that the selection of this subject was a very happy one.

E. Boyd Smith's draughtsmanship in "The

Circus" (Stokes) is not any too good, but is an improvement over his last season's book. In the action that fills his composition there is a



Illustration (reduced) from "Seven Ages of Childhood."

dash and a go to all the scenes, especially the one of The Wild West Show.

A holiday edition of "Little Peter, a Christmas Morality," by Lucas Malet (Hodder & Stoughton), is illustrated in color by Charles E. Brock. The pictures are somewhat stiffer than Mr. Brock's usual pen work, but the one of Travelers in the Snow is deserving in its color of the fine printing it has received. The whole book is well printed and a worthy setting for a story written in excellent style.

HEROES IN HOMESPUN.

Three sensible girl stories from the Penn Publishing Company are: "A Little Princess of Tonopah" by Aileen C. Higgins, illustrated by Ada C. Williamson; "Glenloch Girls" by Grace M. Remick, illustrated by Ada C. Wil-

liamson; and "Grandpa's Little Girls and Their Friends" by Alice T. Curtis, illustrated by Wuanita Smith.

It is not often that we find among children's books a story that is so full of local color, and so Dickenslike in its humor, as "When Sarah Saved the Day" by Elsie Singmaster, illustrated by Arthur Becher (Houghton, Mifflin). The story is about a family of Pennsylvania German orphans, whose dialect Miss Singmaster seems to be thoroughly familiar with.

The doings of circus people seem to have attracted authors this year more than usual, for not only have we the primer "Circus Book" and "Patty of the Circus" by Helen S. Griffith, illustrated by Frances Jones (Penn), but Arthur McFarland in his "Redney McGaw," illustrated by Arthur W. Brown (Little, Brown), tells "a story of the big show and the



Illustration (reduced) from "The Circus."



Illustration (reduced) from "Little Sister Snow."

cheerful spirit." Mr. McFarland writes with the easy pen of the journalist and the keen observation of a Kipling.

"Dorothy Brown" by Nina Rhoades, illustrated by Elizabeth Withington (Lothrop, Lee & Shepard), is the story of little "Dot," who, when the tale opens, is about six, but being brought up by an actress she does not know her right age. She is taken care of by several people successively and is finally restored to her rightful father and mother. Miss Rhoades tells her story in a natural way that is very convincing to the child reader.

"The Secret of Old Thunderhead" by Louise G. Irwin, illustrated by Victor Perard (Holt), is a story of a Vermont vacation and a hunt for a hidden treasure.

"From Sioux to Susan" by Agnes M. Daulton, well illustrated by B. C. Pease (Century) is the story of a minister's family "that had the most beautiful things happen to them that a family ever did."

"Six Girls and the Seventh One" by Marion A. Taggart, illustrated by William F. Stecher (Wilde), is a sequel to last year's "Six Girls and Bob." The young people bubble over with health and good spirits and the story is pleasantly optimistic.

"The House on the North Shore" by Marion F. Washburne, illustrated by W. J. and M. W. Enright (McClurg), tells of a mystery and of the adventures of Bob and his sister Beth.

Katherine M. Yates, author of a charming allegory "On the Way There," has written the

story of "Chet" and his girl chum Bess, who is a Christian Scientist, with a delightful humor that is not often found in children's books. The book is illustrated by H. S. De Lay (McClurg).

"The Child You Used to Be" by Leonora Pease, illustrated by L. F. Perkins (McClurg), is, like Howells' writing, pictures in the "retrospect." We fancy that the author is an authority on Stevenson and has had his rhythmic style in view while she has penned her pages.

Full of photographic truthfulness of the scenes he portrayed is "Boy Life," stories and readings from the works of Howells' Arranged for Supplementary Reading in the Elementary Schools by Percival Chubb (Harpers).

"Little Sister Snow" by Frances Little (Mrs. Fanny C. Macaulay), author of the "Lady of the Decoration," is illustrated by Genjiro Kataoka (Century). Some of the author's descriptions carry her point home very well as, "Yuki Chan, with her hands joined just below her sash, bent her body like a half-shut jack-knife."

STORIES OF ADVENTURE.

"Bar B Boys; or, The Young Cow Punchers," is by E. L. Sabin (Crowell). The author

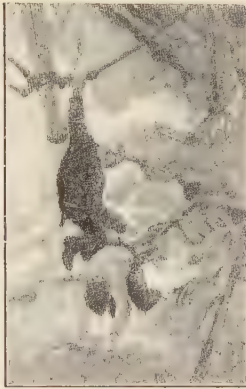


Illustration (reduced) from "When Sarah Saved the Day."

has successively crowded a great deal of adventure in his three hundred and eighty-six pages, but at times the happenings are somewhat too sensational.



"He could not make out the road at all."—From "Little Peter."



"Clasping the boy with his right arm."—From "On the Old Kearsarge."



"She snatched the baby off the bed."—From "Six Girls and the Seventh One."



"Along came Bess, clinging to the rail."—From "Chet."



"Oh, I knew you both would come back."—From "A Little Princess of Tonopah."



"It was Red alone that finished the job."—From "Redney McGaw."



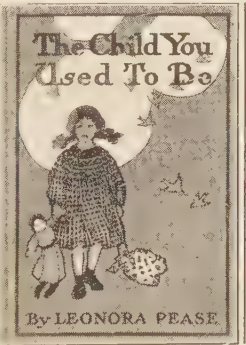
"Two well-known figures came hurrying toward her."—From "Dorothy Brown."



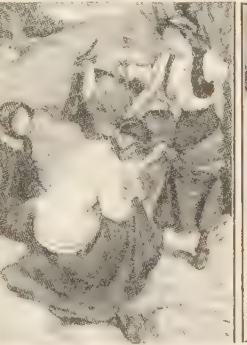
"I thought you were ures came hurrying to your grandmother."—From "Grandpa's Little Girls and Their Friends."



"The sandman began to throw sand into Hänsel and Gretel's eyes."—From "Hänsel and Gretel."



Cover design of "The Child You Used to Be." (The original in black and red on buff.)



"Do you promise to keep our secrets."—From "Glenloch Girls."



"Away he flew down the hill."—From "When Roggie and Reggie Were Five."

ILLUSTRATIONS (REDUCED) FROM SOME OF THE SEASON'S BOOKS FOR CHILDREN.

(There is an optimistic spirit in all the children's books this season that parents will be thankful for; the day of the nerve-racking "House on Wheels" story seems to have passed, and the joy of living is emphasized by juvenile writers, as is seen reflected in the illustrations we reproduce.)

"The Boy's Catlin" edited by Mary G. Humphreys (Scribners) is a compilation from the writings of the famous explorer and Indian painter George Catlin. It should be a welcome addition to any boy's library.

HALF HISTORY AND HALF FICTION.

"Ralph Osborn, a Midshipman at Annapolis," comes from the pen of E. J. Beach (Wilde). Since the author is a Lieutenant-Commander in the United States Navy, the book has the stamp of authority.

The same stamp of authority comes with "On the Old Kearsarge," a story of the Civil War, illustrated by C. W. Ashley, for it is from the pen of Cyrus Townsend Brady (Scribners), whose experience in writing historic fiction and whose standing as a minister warrant the supposition that the tale is a wholesome one.



Illustration (reduced) from "Almost Fairy Children."

TWICE-TOLD TALES.

A new translation by Joseph Walker of Collodi's popular tale "Pinocchio" is issued by Crowell.

In "Stories by Norse Heroes" by E. M. Wilmot-Buxton,

with illustrations far above the average by J. C. Dollman and others (Crowell), there is much about the vikings, King Sigmund, Balder, and Loki, that every child of culture should know.

A similar book of Scandinavian lore is "Stories from the Norseland" by J. P. Edmison (Penn). Mr. Edmison does not quote poetry as does Wilmot-Buxton, and we think the stories lose poetic effect thereby.

Alfred J. Church this year has rewritten in prose Spenser's "Faërie Queene" (Macmillan), illustrated; it is full of the chivalry with which Spenser surrounded his characters.

STORY BOOKS AND USEFUL BOOKS.

"Wonderful Little Lives" by J. A. Schwartz, illustrated by C. E. Atwood (Little, Brown), is a nature book that describes the doings of grasshoppers, spiders, ants, bees, etc.

"Life Stories for Young People," translated from the German by G. P. Upton in twenty-four volumes, is published by McClurg. The stories are told as though the narrator were an eyewitness and saw all the important facts.

Fanciful stories are: "Overheard in Fairyland" by M. A. Bigham (Little, Brown); the illustrations by R. S. Clements add much to the attractiveness of the book.



Illustration (reduced) from "Stories of Norse Heroes."

"Almost Fairy Children" by Caleb Lewis, is illustrated by G. F. Kerr (Bobbs-Merrill).

"Polly and Dolly" by M. F. Blaisdell, illustrated by H. Heyer (Little, Brown), is well illustrated; the story, written for children from five to seven, is natural.

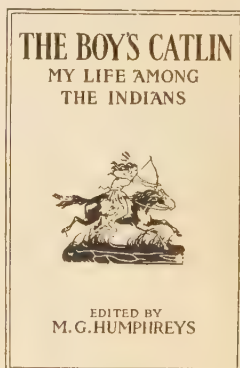
"The Circus Book" by B. E. Buffington, T. Weimer, and R. G. Jones, A.M., is illustrated from photographs made directly from performing animals and circus clowns (Sanborn).

Another comic animal book comes from Paris, "Animals in the Ark" of P. Guizou, translated by Edgar Mills, illustrated by A. Vimar (Duffield). Here, however, the author and artist have used greater invention and the result is far more amusing.

Gertrude Smith, as we have said in these reviews more than once, writes in a finished style. Her "When Roggie and Reggie Were Five," illustrated by Henrietta Adams (Harpers), is a model of a book for small children.

As a practical guide book for a boy wishing to experiment in mechanics, Harper's "Machinery Book for Boys" by Joseph H. Adams is one of the most attractive we have ever seen.

"Favorite Song Pantomimes" by Marie Irish is published by the Flanagan Company. A student with dramatic temperament ought with their help be able to render national songs and negro melodies in an effective style.



Cover (reduced) of "The Boy's Catlin."



Illustration (reduced) from "Grimm's Animal Stories."

